AES

AMATEUR ELECTRONIC SUPPLY

HAM RADIO CATALOG

FALL/WINTER 2001

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TAKE A CLOSER LOOK AT ICOM!

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IC-756PROII

NEW

The best just got better!

- 160-6M @ 100W
- 32 Bit IF-DSP
- Improved 3rd IMD Characteristics
- Digital IF Filter w/Selectable Shapes
- Enhanced 5" TFT Color Display
- SSB/CW Synchronous Tuning
- External Control for Voice Memory
- Adjustable RIT Clear
- 1/4 Tuning Steps in Digital Mode
- Dual Watch
- Multiple DSP Controlled AGC Loops
- 101 Alphanumeric Memories
- VOX
- Auto Antenna Tuner
- Many More Features

IC-PW1

Give your desktop station 1kW of power

- Remote Control Head
- 100% Duty Cycle
- Compact Size.

Can be used with almost any HF, 6M, or HF/6M rig - not just ICOM rigs.

Ask AES for details.

WORK THE MAGIC

IC-718

Perfect for beginners - advanced performance at a start-up price

- 160-10M @ 100W
- 12V Operation
- Simple Operation
- CW Keyer Built-in
- One Touch Band Switching
- Direct Frequency Input
- VOX Built-in
- 101 Alphanumeric Memories
- Built-in Keyer
- 500kHz - 30.0 MHz Rx
- IF Shift
- Optional DSP
- PC Programmable*

IC-746

Advanced HF performance w/6M & 2M

- 10-2M @ 100W
- IF-DSP
- Twin Passband Tuning (PBT)
- CTCSS Encode/Decode w/Tone Scan
- 102 Alphanumeric Memories
- Full Duty Cycle
- Front Panel Adjustable NR
- Audio Peak Filter
- Auto Notch Filter
- 3 Optional Filter Positions
- 4.9" LCD/Dot Matrix Display
- CW Memory Keyer
- VOX
- Auto Antenna Tuner
- PC Controllable*

IC-910H

More Power. Go Anywhere Size.

- 2M @ 100W/70CM @ 75W Variable Output
- Simultaneously Work Two Bands at Once
- 9600 bps High Speed PACKET Port
- All Mode
- .11 uV Sensitivity
- Main & Sub Band Functions for IF Shift, Sweep, NB, RF Attenuator
- Large LCD Display
- Four Versatile Scanning Functions
- CTCSS Encode/Decode/Tone Scan
- Built-in Keyer
- Memory Pad
- Normal/Reverse Satellite Functions
- Optional 1200 MHz Band Unit
- Optional DSP
- PC Controllable*

NEW

PS-125

DC Power Supply

- More Power - 25 AMPS Continuous
- Quieter RF Operation
- Smaller Footprint - Takes Up Less Space
- Matches Newer ICOM Rigs

IC-756PRO

Push digital to new levels!

- 160-6M @ 100W
- 32 Bit IF-DSP
- 5" TFT Color Display w/Spectrum Scope
- Digital IF Filter w/41 Passband Widths
- 121 Microphone Equalized Audio Settings
- Dual Watch
- Multiple DSP Controlled AGC Loops
- Advanced CW Functions
- 101 Alphanumeric Memories
- VOX
- Auto Antenna Tuner
- PC Controllable*

IC-775DSP

Pull out the weak signals!

- 160-10M @ 200W
- All Mode
- IF-DSP with Noise Reduction, Auto and Manual Notch, Audio Peak Filter, and Twin Passband Tuning
- Adjustable Noise Blanker
- Dual Watch
- Adjustable AGC
- CW Keyer
- Auto Antenna Tuner
- VOX
- CTCSS Encoder
- Internal Auto Antenna Tuner
- PC Controllable*

Most ICOM rigs are PC programmable with select ICOM options

PC Ready!

IC-V8
Rugged, Easy to Use 2M

- CTCSS/DTCS Encode/ Decode w/ Tone Scan
- 5.5 Watts Out of the Box
- Fits Great in Any Hand. Full Sized Keypad Accomodates Larger Fingers.
- New Acoustic Design - Excellent recovered Audio
- Military Grade Const.
- 100 Alphanumeric Memories
- Drop-in Charger Included

NEW

IC-W32A
Advanced dual bander

- 2M/70CM
- 5W@13.5V
- 200 Alphanumeric Memories
- Auto Repeater
- CTCSS Encode/Decode w/Tone Scan
- Tri & Dual Band - V/V, U/U, V/U
- Simple operation, Advanced Features

IC-Q7A
Super small size, big sound

- 2M/70CM
- Wide Band Rx† - 30 to 1300MHz
- 200 Memories
- Auto Repeater
- CTCSS Encode/Decode w/Tone Scan
- Includes "AA" Ni-Cds & Charger
- Work One Band at a Time

Most ICOM HTs meet

SHOCK MIL STD 810 C/D/E VIBRATION

IC-T22A
Shirt pocket small, big performance

- 2 Meters
- Alphanumeric Display
- Wide Band Rx ,Air Band†
- 5W@13.5V DC*
- 3W@9.6V DC Standard
- 40 Alphanumeric Memories
- Easy to Use

IC-T81A
World's First QUAD Band HT

- Easy to Use
- 6M/2M/440MHz/1.2GHz
- Wide Band Rx†
- 5W@13.5VDC*, 1W/1.2 GHz
- Ni-Mh Battery
- Auto Repeater
- Water Resistant

IC-T7H
Powerful performance

- 2M/70CM
- 6W Output
- 70 Alphanumeric Memories
- Auto Repeater
- CTCSS Encode/Decode w/Tone Scan
- Air Band Receiver†
- Easy to Use

IC-2100H
Rugged 2 Meter, large controls

- 50 Watts
- Backlit Remote Control Mic
- MIL SPEC 810 C/D/E
- 113 Alphanumeric Memories
- CTCSS Encode/Decode w/Tone Scan
- Auto Repeater
- Large Keys and Knobs

IC-706MKIIG
The most versatile series of compact, multi-band rigs ever made

- 160-10M/6M/2M/70CM
- HF/6M @ 100W, 2M @ 50W, 70CM @ 20W
- All Mode w/DSP
- 107 Alphanumeric Memories
- CTCSS Encode/Decode w/Tone Scan
- Auto Repeater
- Plug-n-Play Filters

IC-T2H
Police radio rugged

- 2 Meters
- 6W Output
- 40 Alphanumeric Memories
- Auto Repeater
- CTCSS Encode/Decode w/Tone Scan
- Includes "AA" Ni-Cds & Charger
- Our Most Affordable

IC-T2H SPORT *ALSO AVAILABLE!*
Grab-N-Go Convenience

- 2 Meters
- 40 Alphanumeric Memories
- Auto Repeater
- CTCSS Encode/Decode w/Tone Scan
- Alkaline Case Only
- All Accessories Available Separately
- Pefect Back-Up or Second HT

IC-2800H
Audio excellence and video excitement

- 2M/70CM
- Dual Band Scopes
- 3" Color TFT Display
- 232 Alphanumeric Memories
- CTCSS Encode/Decode w/Tone Scan
- Auto Repeater
- Selectable RF Attenuator
- NTSC Video Display
- Air Band Rx

IC-207H
Super compact, Detachable Control Panel*

- 45W VHF - 2M
- 35W UHF - 70CM
- AM Aircraft Rx
- 182 Memories
- CTCSS Encode/Decode w/Tone Scan
- Auto repeater
- Remote Head Capable

WORK THE MAGIC

Want to know more?

www.icomamerica.com

ICOM®

†This device has not been approved by the FCC. This device may not be sold or leased, or offered for sale or lease, until approval of the FCC has been obtained.
*Optional equipment required. †Reception guaranteed on US ham bands only. ††MIL STD 810 C/D/E for shock/vibration. ©2001 ICOM America, Inc. 2380 116th Ave NE, Bellevue, WA 98004, 425-454-8155. The ICOM logo is a registered trademark of ICOM, Inc. All specifications are subject to change without notice or obligation. AMASPREAD801

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Note: Charges for truck shipments from 1-99 lbs are running a minimum of $80.00, plus local destination charges. It is advisable to contact a local freight office for a quotation.

(D) **DISCONTINUED** by Manufacturer but still available from stock in limited quantities when this price list was published.

(†) **TEMPORARY LOW PRICE** due to Special Purchase, over-stock, etc. Quantities may be limited at price shown.

(Δ) Item *not* discontinued by Manufacturer but probably will not be available from our stores when present stock is sold out.

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ADI (ADI)

		AES Price
AT-201HP	5w 2m FM HT/batt/cgr/TTP	$119.99
AT-401HP	5w 440 FM HT/batt/cgr/TTP	159.99
ARC-12	Smart charger	62.99
CHA-072	Wall charger for RBP-072 batt	12.99
CHA-120	Wall charger for RBP-120 batt	12.99
CHA-612	Wall charger for RBP-612 batt .Δ	9.99
CHA-672/CHA-607	Wall cgr; RBP-607 batt Δ	6.99
CBP-262	Battery holder; 6 AA nicads	19.99
MQA-999/SD-911	Rapid charger	62.99
PCA-145	Cig lighter cable; not for AT-600 .	14.99
PCA-600	Cig lighter cable for AT-600 .....Δ	15.99
PROG-600	PC prog soft/cable for AT-600 Δ	39.99
RBP-072	7.2v 700ma nicad battery .....Δ	34.99
RBP-120NMH	12v 600ma NiMH	69.99
RBP-612NMH	13.2v 1000ma NiMH; 600 .Δ	69.99
SLC-200/SLC200S	2.5w case; not AT-600 Δ	9.99
SLC-200-L	5w carrying case; not for AT-600	20.99
SLC-600-S	2.5w carrying case; AT-600 ...Δ	9.99
SLC-600-L	5w carrying case; AT-600HP ..Δ	20.99

See Premier for speaker/mics for ADI HTs

AR-147+	60w 2m FM Xcvr w/TTP mic	149.99
MTG BKT	Extra mobile bracket	10.99
PWR CORD	Extra DC cable	10.99
AR-247	30w 220 FM Xcvr w/TTP mic	209.99
MTG BKT	Extra mobile bracket	10.99
PWR CORD	Extra DC cable	10.99
AR-447	35w 440 FM Xcvr w/TTP mic	209.99
MTG BKT	Extra mobile bracket	10.99
PROG-47	PC prog soft/cable; AR-147/247/447	39.99
PWR CORD	Extra DC cable	10.99

See Premier for sun visor mic/cables for ADI mobiles

ADI/PRYME

PR-52	5w 6m FM HT/batt/cgr/TTP	$159.99
PR-222	5w 220 FM HT/batt/cgr/TTP	169.99
CHA-120	Wall charger for RBP-22 batt	12.99
CBP-263	AA battery case	19.99
MQA-999/SD-911	Rapid charger	62.99
PTC-001	Mobile power pack	28.99
RBP-22	Extra 12v 600ma nicad battery .Δ	34.99
RBP-22H	12v 1000ma NiMH battery	69.99

ADI - continued

		AES Price
SLC-22L	Leather case	14.99

See Premier for speaker/mics for ADI/Pryme HTs

AOR (AOR)

AR-3000AB	.1-2036MHz dlx w/SSB/cell blkd .	1099.99
MM-1	Mobile mounting bkt; AR-3000AB .D	19.99
SDU-5500	Spec disp; AR-3000AB/Ico base Rcvr	1099.99
AR-5000B	.01-2600MHz scan/cell blkd/spec ord	1899.99
AR-8600B	.53M-2.04G base rcvr AM/FM/SB/cell blkd	869.99
AR-16B	.5-1300MHz hand scan/cell blkd ...D	199.99
SC-2700	Soft case for AR-2700 .....D	12.99
AR-8200B	.5-2040MHz hand/SSB/cell blkd D	479.99
AR-8200 Mk II-B	.5-2040 hand/SSB/cell blkd	549.99
LC-8200	Leather case	24.99
SC-8200P	Soft case	13.99
TDF-370	Multi-media terminal/DSP	329.99

AIM (AIM)

24-7735P	Coax stripper; RG-58/59/62	$ 21.99
24-7736P	Coax stripper; RG-59/6/8281	21.99
24-7739P	Coax stripper; RG-8/11/213	28.99
38-305	500ma 3/4.5/6/7.5/9/12vdc adapter	9.99
38-312	1.2A 1.5/3/4.5/6/7.5/9/12vdc adapt .	29.99
38-384	4A power supply, 5A surge	39.99
HT-332	Coax stripper; RG-58/59/62/6 .....Δ	9.99

ARRL (ARR)

096	2002 hardcover Radio Amateur's Handbook	$ 49.95
100	2002 softcover Radio Amateur's Handbook	34.95
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105	1985-89 QST on CD-ROM	39.95
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107	1975-79 QST on CD-ROM	39.95
108	1970-74 QST on CD-ROM	39.95
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195	Introduction to Morse Code cassettes	14.95
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ARRL - continued

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302	15-22 wpm code practice audio CD	14.00
303	5-10 wpm code practice audio CD	14.00
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308	Spread Spectrum Source Book	20.00
310	Stealth Amateur Radio	14.95
315	Tech Q & A License Manual	12.95
317	Technician Video Course/book/software .	149.00
318	Technician Course book/software only	29.00
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321	TravelPlus for Repeaters 01/02 CD-ROM	39.95
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325	USA Map	8.00
328	Understanding Basic Electronics	20.00
329	Vertical Antenna Classics	12.00
332	VHF/UHF Radio Buyer's Source Book	12.00
340	W1FB's QRP Notebook	10.00
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346	World Azimuthal Map	12.00
347	Radio Amateurs World Atlas	9.95
350	Yagi Antenna Classics	17.95
354	Your Mobile Companion	12.00

ATOC (ATO)

IHTH-1	⅜-24 trailer hitch antenna mount	$ 17.99

ALINCO (ALI)

DJ-C5T	300mw cc size 2m/440 HT/lith ion/spkr	$149.99
EDC-16B	Cigarette lighter cable w/filter	21.99
EDC-36	Angle plug power cable w/filter	24.99
EME-12	Headset w/earphone/mic/VOX	71.99
EME-13	Headset w/ear bud/mic/VOX	71.99
EME-15	Earphone/mic w/VOX	56.99
EME-16	Tie-pin mic & earphone	17.99
EME-17	Boom earphone mic	32.99
EME-18	Earphone	8.99
EDS-7	Mic adapt; EME-12/13/15/16/17/18	12.99
EMS-49	Miniature lapel spkr/mic	32.99
EMS-50	Speaker/mic	41.99
ESC-34	Soft case w/belt clip	13.99
DJ-280TH	5w 220 FM HT/batt/cgr/TTP	189.99
EBC-3	Belt clip	4.99
EBP-24N	7.2v 1200ma batt; 180/580/582T	80.99
EBP-28N	12v 700ma batt; 180/582	70.99
EDC-16B	Cigarette lighter cable w/filter	21.99
EDC-36	Angle plug power cable w/filter	24.99
EDC-37	13.8v power cable	7.99
EDC-43	Cig lighter cable	10.99
EDC-45	Quick charger (not for F1)	84.99
EDC-49	Batt cgr; EBP-20/22/24/26/28N	22.99
EDH-11	AA alk pack; DJ-180/580/582T	12.99
EDH-12	DC jack adapter; DJ-180/280TH	12.99
EJ-14U	50 ch mem unit; DJ-180/280TH	21.99
EJ-15U	200 ch mem unit; DJ-180/280TH	30.99
EME-6	Earphone	10.99
EME-11	Ear/microphone w/PTT/VOX .....Δ	29.99
EME-12	Headset w/earphone/mic/VOX	71.99
EME-13	Headset w/ear bud/mic/VOX	71.99

Alinco - continued

	AES Price
EME-15 Earphone/mic w/VOX	56.99
EME-16 Tie-pin mic & earphone	17.99
EME-17 Boom earphone mic	32.99
ESC-18 Soft case; 180TH/EBP-26N	14.99
ESC-19 Soft case; 180TH/EBP-28N	17.99
EBP-35N 7.2v 900ma nicad batt; DJ-G5TH Δ	59.99
EBP-36N 9.6v 650ma nicad batt; DJ-G5TH Δ	68.99
EDC-22 Wall charger for EBP-12NA Δ	4.99
EDC-52 Quick charger; DJ-G1T Δ	29.99
EDC-55 Drop-in cgr; EBP30/31/32N; G1T Δ	4.99
EJ-16U Tone squelch unit; DJ-G1T D	14.99
EJ-28U CTCSS decoder unit; DJ-191TH Δ	19.99
ESC-23 Soft case for EBP-30N; DJ-G1T Δ	2.99
ESC-24 Soft case; EBP-31N/32N; G1T Δ	2.99
DJ-196T 5w 2m FM HT/batt/cgr/TTP	139.99
DJ-496T 5w 440 FM HT/batt/cgr/TTP	149.99
DJ-596T 5w 2m/440 FM HT/NiMH/cgr/TTP	209.99
EBC-6 Mobile bracket	15.99
EBP-48N 9.6v 700ma 5w nicad battery	64.99
EBP-50N 9.6v 700ma 5w NiMH battery	23.99
EDC-16B Cigarette lighter cable w/filter	21.99
EDC-36 Angle plug power cable w/filter	24.99
EDC-37 13.8v power cable	7.99
EDC-43 Cig lighter cable	10.99
EDC-88 Rapid charger	60.99
EDH-30 Dry cell battery case	15.99
EJ-43U Digital board for DJ-596T only	109.99
EME-6 Earphone	10.99
EME-12 Headset w/earphone/mic/VOX	71.99
EME-13 Headset w/ear bud/mic/VOX	71.99
EME-15 Earphone/mic w/VOX	56.99
EME-16 Tie-pin mic & earphone	17.99
EME-17 Boom earphone mic	32.99
EMS-47 Spkr/mic w/volume control	24.99
ERW-4C PC cable	39.99
ESC-36 Soft case for EBP-48N	13.99
DJ-V5TH 5w 2m/440 FM HT/batt/cgr/TTP	209.99
DJ-V5TDCH 5w 2m/440 clear HT/batt/cgr/TTP	229.99
EBP-45N 6v 700ma 2w nicad battery Δ	34.99
EBP-46N 9.6v 600ma 5w nicad battery	64.99
EDC-16B Cigarette lighter cable w/filter	21.99
EDC-36 Angle plug power cable w/filter	24.99
EDC-37 13.8v power cable	7.99
EDC-43 Cig lighter cable	10.99
EDC-91 Quick charger	60.99
EDH-29 Dry cell case for 4-AA's	12.99
EME-6 Earphone	10.99
EME-12 Headset w/earphone/mic/VOX	71.99
EME-13 Headset w/ear bud/mic/VOX	71.99
EME-15 Earphone/mic w/VOX	56.99
EME-16 Tie-pin mic & earphone	17.99
EME-17 Boom earphone mic	32.99
EMS-8Z Remote speaker/mic	50.99
EMS-47 Spkr/mic w/volume control	24.99
ESC-35 Soft case for EBP-45N/46N	13.99
DJ-S11T 340mw 2m FM HT/battery holder	79.99
DJ-S41T 340mw 440 FM HT/battery holder	79.99
EBC-6 Mobile bracket	15.99
EDC-78 Wall charger; (not for alkalines)	7.99
EDH-18 12v to 5.5v DC/DC conv/cig plug	32.99
EME-6 Earphone	10.99
EME-12 Headset w/earphone/mic/VOX	71.99
EME-13 Headset w/ear bud/mic/VOX	71.99
EME-15 Earphone/mic w/VOX	56.99
EME-16 Tie-pin mic & earphone	17.99
EME-17 Boom earphone mic	32.99
EMS-47 Spkr/mic w/volume control	24.99
ESC-27 Soft case	16.99
DJ-X2T 522KHz-1GHz cc size Rcvr/lith ion/cell blkd	219.99
EDC-36 Angle plug power cable w/filter	24.99
EDC-37 13.8v power cable	7.99
EDC-43 Cig lighter cable	10.99
EDH-27 Dry cell case w/charger	38.99
EDH-28 DC/DC converter w/cig plug	35.99

Alinco - continued

	AES Price
ESC-34 Soft case w/belt clip	13.99
DJ-X10T .1MHz-2GHz AM/FM/SB hand/cell blkd	309.99
EBP-33N 4.8v 650ma nicad battery	34.99
EBP-34N 4.8v 1200ma nicad battery	84.99
EBP-37N 4.8v 700ma nicad battery	34.99
EDC-16B Cigarette lighter cable w/filter	21.99
EDC-36 Angle plug power cable w/filter	24.99
EDC-37 13.8v power cable	7.99
EDC-43 Cig lighter cable	10.99
EDC-60 Quick charger	80.99
EDH-16 Dry cell battery case	12.99
EME-6 Earphone	10.99
ERW-4C PC cable	39.99
ESC-28 Soft case for EBP-33N	13.99
ESC-29 Soft case for EBP-37N	13.99
ESC-30 Soft case for EBP-34N	13.99
DJ-X2000T .1-2149MHz receiver/cell blocked	499.99
EBP-33N 4.8v 650ma nicad battery	34.99
EBP-34N 4.8v 1200ma nicad battery	84.99
EBP-37N 4.8v 700ma nicad battery	34.99
EDC-16B Cigarette lighter cable w/filter	21.99
EDC-36 Angle plug power cable w/filter	24.99
EDC-37 13.8v power cable	7.99
EDC-43 Cig lighter cable	10.99
EDC-60 Quick charger	80.99
EDH-16 Dry cell battery case	12.99
EME-6 Earphone	10.99
ERW-4C PC cable	39.99
ESC-28 Soft case for EBP-33N	13.99
ESC-29 Soft case for EBP-37N	13.99
ESC-30 Soft case for EBP-34N	13.99
EMS-12A TTP microphone; DR-M03SX Δ	65.99
DR-M06TH 20w 6m FM Xcvr/TTP/encoder	259.99
MB-130 Extra mobile bracket	19.99
HK-130 Hardware kit for MB-130	4.99
PC-15B Extra DC cable	10.99
DR-135T Black 50w 2m FM Xcvr w/TTP mic	169.99
DR-235T Black 25w 220 FM Xcvr w/TTP mic	249.99
DR-435T Black 35w 440 FM Xcvr w/TTP mic	259.99
EDC-37 13.8v power cable; ignition on/off	7.99
EDC-43 Cig lighter cable; ignition on/off	10.99
EJ-40U Digital board; DR-135T/TP/235T/435T	119.99
EJ-41U 1200/9600 TNC unit; 135/235/435T	139.99
MB-130 Extra mobile bracket	19.99
HK-130 Hardware kit for MB-130	4.99
PC-15B Extra DC cable	10.99
DR-135TP Black 50w 2m FM/TT/1200/9600 TNC	269.99
EDC-37 13.8v power cable; ignition on/off	7.99
EDC-43 Cig lighter cable; ignition on/off	10.99
MB-130 Extra mobile bracket	19.99
HK-130 Hardware kit for MB-130	4.99
PC-15B Extra DC cable	10.99
CC-150 Cloning cable for DR-150TQ Δ	9.99
EJ-19U Memory expansion unit; DR-430TQ Δ	9.99
DR-605TQ 50/35w 2m/440 FM/TT/EJ24U tone sq	339.99
EMS-14 Desk top microphone	114.99
EDS-8 Adapter for EMS-14 w/DR-605TQ	28.99
MB-130 Extra mobile bracket	19.99
HK-130 Hardware kit for MB-130	4.99
PC-15B Extra DC cable	10.99
EDS-1 Junc box w/ext spkr, mic jacks; 610TQ Δ	57.99
EDS-2 9' extension cable; EDS-1/610TQ Δ	23.99
EDS-3 15' extension cbl; EDS-1/610TQ Δ	40.99
EJ-23U 200 channel memory unit; 610TQ Δ	37.99
EMS-12A Extra TTP microphone	64.99
DX-70TH Comp HF Xcvr/100w 6m/mob bkt	749.99
DM-330MVT 30A switching ps/meter/32A surge	179.99
DM-340MVT 30A ps w/meters/35A surge	189.99
EBC-8 Front control head bracket	15.99
EBC-9 Extra mobile bracket	32.99
EDS-4 Rem mt acc kit w/5' cable, 2 covers	41.99
EDS-5 15' microphone extension cable	36.99
EDS-6 15' remote cable	68.99

Alinco - continued

	AES Price
EDX-1 Manual coax feed antenna tuner D	269.99
EDX-2 160-10m 200w auto wire ant tuner	319.99
EMS-14 Desk top microphone	114.99
MB-130 Extra mobile bracket	19.99
HK-130 Hardware kit for MB-130	4.99
PC-25 Extra DC cable	35.99
DX-77T 160-10m HF Xcvr	699.99
DM-330MVT 30A switching ps/meter/32A surge	179.99
DM-340MVT 30A ps w/meters/35A surge	189.99
EDS-5 5' microphone extension cable	36.99
EDX-1 Manual coax feed antenna tuner D	269.99
EDX-2 160-10m 200w auto wire ant tuner	319.99
EMS-14 Desk top microphone	114.99
ERW-4C PC cable	39.99
MB-130 Extra mobile bracket	19.99
HK-130 Hardware kit for MB-130	4.99
PC-25 Extra DC cable	35.99

CONSUMER ELECTRONICS

DJ-S46 Family radio svc handheld/batt/cgr	$ 89.99
EBC-6 Mobile bracket	15.99
EDC-78 Wall charger (not for alkalines)	7.99
EDH-18 12v to 5.5v DC/DC conv/cig plug	32.99
EME-6 Earphone	10.99
EME-13 Headset w/ear bud/mic/VOX	71.99
EME-15 Earphone/mic w/VOX	56.99
EME-16 Tie-pin mic & earphone	17.99
EMS-47 Spkr/mic w/volume control	24.99
ESC-27 Soft case	16.99

ALPHA DELTA (ALP)

R-T/N 200w 1 GHz type N protector D	$ 14.99
Extra **arc-plug** cartridge; **R-T/N** D	8.99
Extra **arc-plug** cartridge for **LT** or LT/N D	2.99
RT-N/2G 200w 1 GHz type N protector D	14.99
Extra **arc-plug** cartridge for **RT-N/2G** D	4.99
Extra **arc-plug** cartridge for **HV-N/2G** D	4.99
ATT-3G50 200w 3GHz type N surge protector	59.99
ATT-3G50-HP 2kw 3GHz type N surge protector	59.99
ATT-3G50U 200w 500MHz surge protector	49.99
ATT-3G50U-HP 2kw 500MHz surge protector	49.99
ATT/3G50 Extra 200w arc-plug cartridge	14.99
ATT-HP/3G50HP Extra 2kw arc-plug cart	14.99
Delta-2 500 MHz 2-pos coax switch/protector	49.99
Delta-2/N 1.3 GHz 2-pos type N switch/protector	64.99
Delta-4 500 MHz 4-pos coax switch/protector	79.99
Delta-4/N 1.3 GHz 4-pos type N switch/protector	89.99
D-4 Extra arc-plug; Delta-2/2N/4/4N	9.99
Delta-4C 4-pos coax switch/protector console	139.99
Delta-4CN 4-pos N coax switch/protector console	149.99
D-4 Extra arc-plug; Delta-4C/4CN	9.99
Delta-C Kit w/ctr ins/2 end ins/static protect	29.99
SEP Extra arc-plug cart; DX-Ultra/Delta-C	15.99
Delta-CIN Antenna end insulator each	1.99
DX-80 80m 134' complete dipole antenna	49.99
DX-40 40m 67' complete dipole antenna	39.99
DX-20 20m 34' complete dipole antenna	39.99
DX-A 160-80-40m twin sloper antenna	59.99
DX-B 160-80-40-30m 60' sloper ant	69.99
DX-CC 80-10m 5-band 82' no trap, no tuner dipole	119.99
DX-DD 80/40m 82' Delta Dipole antenna	89.99
DX-EE 40-10m 4-band 40' no trap, no tuner dipole	99.99
DX-LB 160-80-40m 100' shortened dipole	119.99
DX-LB Plus 160/80/40/20/15/10m 100' short dip	149.99
DX-SWL AM broadcast-13m 60' SWL sloper ant	79.99
DX-Ultra AM broadcast-30MHz 80' SWL dipole	119.99
SEP Extra arc-plug cart; DX-Ultra/Delta-C	15.99
Outpost Base tripod mtg sys for mobile ant	199.99
SK-1 Straight Kent key	129.99
SP-1 Single paddle Kent key	139.99
TK-1 Titanic replica straight Kent key	149.99
TP-1 Twin paddle iambic Kent key	149.99
Basic Technology Amateur Radio video & book	39.99

Also see OUTBACKER

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Browse Our Store On-Line at www.aesham.com

AES Price

AMECO PUBLICATIONS (AME)

4-01	Code Course Instruction Booklet	$ 2.99
6-01	Mastering the Morse Code	3.00

CODE COURSES - CASSETTE TAPES

100-T	Junior code tape, 0-7½ wpm	$ 5.95
107-PC-2	IBM Morse Code Course, version 2.0	29.95

CODE PRACTICE OSCILLATORS & CODE KEYS

K-1	Bakelite type key	$ 10.95
K-4	Brass type key	16.95
OCM-2K	Code oscillator & CW monitor kit	19.99
OCM-2W	Wired oscillator & CW monitor	24.99

PREAMPLIFIERS

TPA	HF receive preamp & indoor active ant	$ 76.99
P-9T	Power supply for TPA	9.99
PT-3	2-54 MHz transceiver preamp	124.99
P-12T	Power supply for PT-3	9.99

FILTERS

HP-75T	75 ohm high-pass filter	$ 12.99
HP-300T	300 ohm high-pass filter	12.99

AMERITRON (AMR)

AL-80B	1kw PEP out linear (3-500Z)	1199.99
AL-82	1.5kw PEP out linear (2 3-500Zs)	2069.99
AL-572	1.3kw PEP out linear (4 572Bs)	1299.99
AL-800	1250w PEP out linear (3CX800A7)	1569.99
AL-800H	1.5kw PEP out amp (2 3CX800A7)	2299.99
AL-811	600w PEP out linear (3 811As)	599.99
AL-811H	800w PEP out linear (4 811As)	749.99
AL-1200	1.5kw PEP out linear (3CX-1200A7)	2169.99
AL-1500	1.5kw out linear (8877)	2569.99
ALS-500M	600w PEP out solid state mob amp	699.99
ALS-600	700w PEP out solid state amp w/ps	1129.99
ARB-702I	Amplifier Xcvr interface; Icom	39.99
ARB-702I2	Amp Xcvr interface; Ico 706&MkII/G	39.99
ARB-702K	Amplifier Xcvr interface; Kenwood	39.99
ARB-702Y	Amplifier Xcvr interface; Yaesu	39.99
ATP-100	Amplifier tuning pulser	49.99
ATP-102	Deluxe amplifier tuning pulser	59.99
ATR-20	1.2kw PEP antenna tuner	419.99
ATR-30	3kw PEP antenna tuner	549.99
ADL-1500	1.5kw dummy load with oil	69.99
ADL-2500	2.5kw dummy load with fan	189.99
ICP-120	120v inrush protector	79.99
ICP-240	240v inrush protector	79.99
AWM-30	3kw PEP SWR/wattmeter/rem sens	139.99
QSK-5	Stand alone T/R switch	329.99
QSK-5PC	PC board kit; T/R switch	229.99
CF-5	Cooling fan for QSK-5	39.99
RCS-4	4-pos wireless remote coax switch	129.99
RCS-8V	160-2m 5-pos remote coax switch	139.99
RCS-8VN	160-2m 5-pos N rem coax switch	149.99

Note: RCS-8V/VN require 8-wire control cable.

AMIDON (AMI)

1.5:1-HB75	W2FMI 1.5:1 dipole balun Δ	$ 29.99
4:1-HB50	W2FMI 4:1 direct connect beam balun Δ	29.99
1.56:1-HDU50	W2FMI 50:32&18 ohm unun Δ	29.99
1.78:1-HDU50	W2FMI 50:28&12.5 ohm unun Δ	29.99
4:1-HCU50	W2FMI 50:12.5 ohm unun Δ	29.99
9:1-HU50	W2FMI 50:5.56 ohm unun Δ	24.99

Antenna Specialists (ASP)

AP-143	2m 23" on glass cell look-alike ant	$ 69.99
APR151.3	2m 3db 33" on glass antenna	69.99
KAV-382	On glass replacement mtg kit	12.99
ASC-13	Chrome swivel base w/SO-239 D	14.99
MR431	Hatch/trunk groove mt CB ant D	19.99

Antennas America (ANA)

HVA-146/CVA-146	75w 2m disguised decal ant	$ 69.99
HVA-460/CVA-460	75w 440 disguised decal ant	69.99

AES Price

Antenna Supermarket (ANT)

Eavesdropper*	60-11m trap dipole SWL ant	$ 89.99

*Specify SO-239 or twin-lead

ANTENNA WORLD (ANW)

COM136-4500NP	VHF/UHF port dipole/BNC	$ 19.99

ARROW Antenna (ARA)

146/437-10	3 el 2m/7 el 440 handheld beam	$ 73.99
146/437-10BP	3el 2m/7el 440 HH split bm beam	79.99
10w duplexer	(installs in boom)	59.99

ARTSCI (ART)

Amateur Handbook	(Hambook)	$ 14.95
Lost Users	Manuals	19.95
US Repeater	Mapbook 2000/2001 edition	9.99

ASTATIC (AST)

10DA-L	Dynamic mic head (no stand or cable)	$ 69.99
D-104-L	Crystal mic head (no stand or cable)	42.99
T-UG9	Amplified desk stand	52.99
575M-6	Amp 6-wire mic w/tone control Δ	39.99
Night Eagle	Brass/black crystal desk mic D	99.99
T-UG9-D104	Amp mic, 6-wire w/stand	94.99
T-UP9-D104-SE	Silver Eagle 6-wire amp	119.99
MC-320	Crystal mic cartridge for D-104	19.99

ASTRON (ASR)

RS-4L	3A ps, 4A surge, w/cig lighter socket	$ 49.99
RS-7A	5A power supply, 7A surge	59.99
RS-10A	7.5A power supply, 10A surge	69.99
RS-12A	9A power supply, 12A surge	79.99
RS-12S	9A ps, 12A surge, w/speaker	89.99
RS-20A	16A power supply, 20A surge	99.99
RS-35A	25A power supply, 35A surge	149.99
RS-35A/220V	220v 25A ps, 35A surge	169.99
RS-50A	37A power supply, 50A surge	219.99
RS-70A	57A power supply, 70A surge	259.99
RS-20M	16A ps w/meters, 20A surge	119.99
RS-35M	25A ps w/meters, 35A surge	169.99
RS-50M	37A ps w/meters, 50A surge	239.99
RS-70M	57A ps w/meters, 70A surge	289.99
VS-20ML	Variable 16A ps/meters, 20A surge	139.99
VS-35M	Variable 25A ps/meters, 35A surge	189.99
VS-50M	Variable 37A ps/meters, 50A surge	259.99
RM-35M	25A rack mt ps/meters, 35A surge	249.99
RM-50M	37A rack mt ps/meters, 50A surge	279.99
RM-60M	50A rack mt ps/meters, 55A surge	359.99
SS-25	20A switching ps, 25A surge	109.99
SS-25M	20A switching ps/meters, 25A surge	129.99
SS-30	25A switching ps, 30A surge	119.99
SS-30M	25A switching ps/meters, 30A surge	139.99
12/115	200w solid state 12vdc-115vac inverter	69.99
N2412-12	9A 22-32vdc to 13.8vdc converter	49.99
N2412-24	16A 22-32vdc to 13.8vdc converter	79.99

B & K (B&K)

541	Component comparator D	$149.99
1646	0-16V, 0-10A power supply D	169.99
2831A	Digital bench multimeter Δ	129.99

BMI (BMI)

972A	12" 12-hour wall clock Δ	$ 19.99
972AD	14" 12/24-hour wall clock	32.99
973A	12" 24-hour wall clock	49.99

B & W (B&W)

AP-10A	51" portable 40/20/15/10/6/2m ant	$ 89.99
AT-55	40/20/15/10m 55' trap antenna	99.99
AT-110	80/40/20/15/10m 110' trap antenna	99.99
AS-160	160/80/40/20m 137' trap dipole	154.99
AS-80	80/40/20m 78' trap dipole	119.99
AS-40	40/20/15/10m 40' trap dipole	154.99
AS-20	20/15/10m 20' trap dipole	119.99

B & W - continued

AES Price

AC-1.8-30	Continuous 1.8-30 MHz vee ant	209.99
ACS-1.8-30	Continuous 1.8-30MHz stainless vee	329.99
AC-5-30	Continuous 5-30 MHz 65' antenna	199.99
ACS-5-30	Continuous 5-30 Mhz 65' stainless ant	319.99
ASW-90	500KHz - 30MHz 90' receive only ant D	119.99
AXS-160	160/30m 96' trap dipole	99.99
AXS-80	80/40/15m 65' trap dipole	119.99
BWD-1.8-30	1.8-30 MHz 90' folded dipole	199.99
BWDS-1.8-30	1.8-30 stainless 90' folded dip	319.99

BELDEN (BEL)

52 OHM COAXIAL CABLE

8216	RG-174 (sub-miniature)	per ft.	$ .30
8216		100 ft. Roll	28.99
8216		500 ft. Roll	104.99
8216		1000 ft. Roll	199.99
9201	RG-58 (solid center)	per ft.	.24
9201		100 ft. cut	22.99
9201		500 ft. Roll	94.99
9201		1000 ft. Roll	169.99
8240	RG-58U (solid center)	per ft.	.30
8240		100 ft. Roll	28.99
8240		500 ft. Roll	104.99
8240		1000 ft. Roll	199.99
8259	RG-58AU (stranded center)	per ft.	.33
8259		100 ft. Roll	30.99
8259		500 ft. Roll	104.99
8259		1000 ft. Roll	199.99
8219	RG-58AU (stranded, foam)	per ft.	.34
8219		100 ft. Roll	31.99
8219		500 ft. Roll	104.99
8219		1000 ft. Roll	199.99
8262	RG-58CU (non-contaminating)	per ft.	.41
8262		100 ft. cut	37.99
8262		500 ft. Roll	139.99
8262		1000 ft. Roll	259.99
9258	RG-8X (stranded, foam)	per ft.	.39
9258		100 ft. cut	34.99
9258		500 ft. Roll	129.99
9258		1000 ft. Roll	239.99
8237	RG-8U	per ft.	.64
8237		100 ft. Roll	59.99
8237		500 ft. Roll	249.99
8214	RG-8U (foam)	per ft.	.59
8214		100 ft. Roll	54.99
8214		500 ft. Roll	259.99
8214		1000 ft. Roll	489.99
9913	RG-8U (low loss)	100 ft. Roll	59.99
9913		250 ft. Roll	129.99
9913		500 ft. Roll	239.99
9913F7	RG-8U (low loss, flexible)	per ft.	.87
9913F7		100 ft. Roll	79.99
9913F7		250 ft. Roll	159.99
9913F7		500 ft. Roll	299.99
9251	RG-8A (non-contaminating)	per ft.	.99
9251		100 ft. Roll	94.99
9251		500 ft. Roll	359.99
8267	RG-213 (non-contaminating)	per ft.	.87
8267		100 ft. cut	79.99
8267		500 ft. Roll	349.99
8242	RG-9U (double shielded)	per ft.	5.99
8242		100 ft. Roll	379.99

75 OHM COAXIAL CABLE

8241	RG-59U (73 ohm, solid center)	per ft.	$ .33
8241		100 ft. Roll	29.99
8241		500 ft. Roll	94.99
8241		1000 ft. Roll	179.99
8238	RG-11 (75 ohm, stranded center)	per ft.	.94
8238		100 ft. cut	89.99
8238		500 ft. Roll	329.99

Belden - continued

		AES Price
8213	RG-11 (75 ohm, solid, foam) .....per ft.	.84
8213	.....100 ft. cut	74.99
8213	.....500 ft. Roll	279.99

ROTOR CABLE

8484	4-wire; 4-20 gauge .....per ft.	$ .29
8484	.....100 ft. cut	25.99
8484	.....500 ft. Roll	94.99
8484	.....1000 ft. Roll	179.99
8448	8-wire; 2-18, 6-22 gauge .....per ft.	.34
8448	.....100 ft. cut	29.99
8448	.....500 ft. Roll	129.99
8448	.....1000 ft. Roll	249.99
9405	8-wire; 2-16, 6-18 gauge .....per ft.	.74
9405	.....100 ft. cut	69.99
9405	.....500 ft. Roll	319.99
9405	.....1000 ft. Roll	599.99

ANTENNA WIRE

8000	No. 14 stranded ant wire .....per ft.	$ .24
8000	.....100 ft. Roll	20.99
8000	.....1000 ft. Roll	179.99

No. 8 ALUMINUM GROUND WIRE

8018	Multiples of 50 ft. .....each	$ 14.99
8018	.....500 ft. Roll	99.99

Note: All above roll pricing is for rolls as shown only; all other lengths, even if more than roll length shown or a multiple of roll length shown, are sold at the per ft. price.

FOAM COAX w/PL-259s ON BOTH ENDS

9349	3' RG-58AU foam	$ 16.99
9350	15' RG-58AU foam .....D	18.99
9352	50' RG-58AU foam	28.99
9354	50' RG-8U foam	52.99
9355	75' RG-8U foam	74.99
9356	100' RG-8U foam	89.99

BELMERIT (BLM)

DM-80	Credit card size multimeter w/case ...	$ 34.99
DX-355	True RMS+20MHz freq multimeter .D	74.99
DX-405	10 func/39 range+20MHz freq multimeter	69.99

BENCHER (BEN)

BY-1	Iambic keyer paddle w/black base	$ 99.99
BY-2	Iambic keyer paddle w/chrome base	119.99
BY-3	Iambic keyer paddle, gold plated	279.99
BY-4	Iambic paddle/blk base/gold components	169.99
170-82	Merc paddle ..drop ship; mfgr will engrave call	449.99
ST-1	Single lever keyer paddle, black base ...	99.99
ST-2	Sgl lever kyr paddle, chrome base	119.99
RJ-1	Dlx hand key w/navy knob/black base ..	95.99
RJ-2	Dlx hand key w/navy knob/chrome base	120.99
XW-1	Low voltage DC fuse panel .....Δ	29.99
XW-20	Fuse kit .....Δ	2.99
XW-39/XW-30	Crimp terminal kit .....Δ	1.99
XW-40	Screw terminal kit .....Δ	2.99
YA-1	1kw low pass filter	75.99
ZA-1A	3.5-30 MHz 1:1 balun	42.99
HWK	Hardware kit; ZA-1A for 2" boom	9.99

BIRD (BIR)

	Elements (Table 1) 25-1000 MHz .....Δ,each	$ 59.99
	Low-power elements (Table 2) .....Δ,each	69.99
25-T-MN	25w dummy load w/type N male ..Δ	69.99

Bounty Hunter (BOU)

Fast Tracker	Metal detector/2-tone target ID	$ 99.99
Tracker IV	Metal detector/3-mode	129.99
Quick Draw II	Metal detector/full motion	224.99
Sharp Shooter II	Metal detector/LCD readout	279.99
Land Star	Metal detector/3-tone audio discrim	349.99
Land Ranger	Metal detector/programmable .	449.99
Time Ranger	Metal detector/top-of-the-line .	549.99
Carry Bag	For Bounty Hunter metal detectors	29.99

Bounty Hunt - continued

		AES Price
10" Coil	10" magnum coil; adds depth	59.99

BUCKMASTER (BUC)

HamCall	CD-ROM ham listings	$ 50.99

BUSHNELL (BUS)

12-1025	10x25 compact Legacy binoculars .	$119.99
13-0430	4x30 LiteVision compact binoculars	18.99
13-0721	7x21 compact Falcon binoculars	39.99
13-1226	12x25 camo FRP compact binocs ...	29.99
13-1250	12x50 wide angle Powerview binocs	59.99
13-2514	8x21 black compact binoculars	24.99
13-3410	7x35 Falcon binoculars	29.99
17-7351	7x35 wide angle armored binoculars	49.99
20-0600	Compact laser rangefinder 600 ...Δ	249.99
26-3652	3.6x52 night vision scope w/illuminator	199.99
78-0040	90mm refractor telescope	439.99
78-0103	1.25" erecting prism	69.99
78-0200	4.5" reflector telescope	349.99
78-6000	6" Dobsonian reflector telescope	299.99
78-8000	8" Dobsonian reflector telescope	399.99
78-9440	60mm refractor telescope	89.99
78-9470	60mm refractor telescope w/zoom ..	129.99
78-9675	4.5" reflector telescope	229.99
78-0101	1.25" 9mm Kellner eyepc; 0040/6000/8000	29.99
78-0102	1.25" 25mm Kellner eyepiece	29.99
78-0105	1.25" 2x Barlow lens; 0040/0200/6000/8000	39.99
78-0106	DC/batt clock drive; 0040/0200/9675	89.99

BUTTERNUT (BUT)

Skyhawk 3X10	Triband 10 el, 24' beam w/bauln *	$999.99

***This item is drop-shipped (shipped direct to you from the Butternut factory). On factory drop-shipments we prefer payment in full with order, however, we will accept your credit card with the understanding that we will process the charge when we order the merchandise from the factory. This means that you may be billed before you receive your drop-shipped merchandise. Shipment is FOB Wood Dale, Illinois via UPS, COD for freight charges only. Freight charges will be collected upon delivery by the carrier. Please allow sufficient time for delivery on this special order item.**

HF-6VX	80/40/30/20/15/10m 26' vert ant	329.99
HF-9VX	80/40/30/20/17/15/12/10/6m 26' vert	389.99
A17-12	17 & 12m kit for HF-6VX	60.99
CPK	Counterpoise kit	129.99
MPS	Mounting post sleeve	12.99
RMK-II	Roof mounting kit w/radials	169.99
STR-II	Radial kit only	124.99
TBR-160S	160m resonator	129.99
HF-2V	80/40m 32' vertical	249.99
30-MRK	30m resonator for HF-2V	110.99
TBR-160S	160m resonator	129.99
10/11	10/11m butterfly beam .....Δ	169.99
P-5	1:1 balun .....Δ	29.99
T-2	2' tripod tower .....Δ	29.99

CES (CES)

SDI-50	Dlx splx/dplx autopatch/rptr controller D	$399.99

CQ (CQX)

33 Simple	Weekend Projects .....Δ	$ 9.99
Building and Using Baluns and Ununs	.....	19.99
Contest Video	Getting Started in Contesting Δ	12.99
DXing Video	Getting Started in DXing .....Δ	12.99
Ham Sat Video	Getting Started Ham Satellites Δ	12.99
Ham Video	Getting Started in Ham Radio ..Δ	12.99
Lew McCoy	on Antennas	15.99
Packet Video	Getting Started Packet Radio Δ	12.99
Quad Antenna	Book	15.99
Shortwave	Propagation Handbook	19.99
Vertical	Antenna Handbook .....Δ	6.99
VHF Video	Getting Started in VHF .....Δ	12.99
W6SAI HF Antenna	Handbook	19.99

CSS (CSS)

Log Windows	Logging program	$ 69.99

CSS - continued

		AES Price
Pacterm 98	CSS Software; Kantronics TNCs	79.99
PK-Term 99	Terminal prog; PK-12/96/232 ...	79.99

CABLE X-PERTS (CAB)

9913FX	9913FX (low loss, flexible) .....per ft.	$ .59
9913FX	.....500 ft. Roll	269.99
9913FC-50	50' 9913FX/silver teflon PL259s	43.99
9913FC-75	75' 9913FX/silver teflon PL259s	60.99
9913FC-100	100' 9913FX/silver teflon PL259s	76.99
9913FC-150	150' 9913FX/silver teflon PL259s	109.99
9913FCN-75	75' 9913FX/type N males	73.99
9913FCN-100	100' 9913FX/type N males	88.99
9913FCN-125	125' 9913FX/type N males	104.99
18214C-3	3' RG8 foam/silver teflon PL259s .	11.99
18214C-6	6' RG8 foam/silver teflon PL259s .	13.99
18214C-25	25' RG8 foam/silver teflon PL259s	20.99
18214C-50	50' RG8 foam/silver teflon PL259s	27.99
18214C-75	75' RG8 foam/silver teflon PL259s	38.99
18214C-100	100' RG8 foam/silver teflon PL259s	49.99
18214C-125	125' RG8 foam/silver teflon PL259s	60.99
18267C-6	6' RG213/silver teflon PL259s	13.99
18267C-15	15' RG213/silver teflon PL259s ..	20.99
18267C-25	25' RG213/silver teflon PL259s ..	22.99
18267C-50	50' RG213/silver teflon PL259s ..	33.99
18267C-75	75' RG213/silver teflon PL259s ..	44.99
18267C-100	100' RG213/silver teflon PL259s .	55.99
19258CC-3	3' RG8X clear/silver teflon PL259s	10.99
19258C-25	25' RG8X/silver teflon PL259s	16.99
19258C-50	50' RG8X/silver teflon PL259s	22.99
19258C-75	75' RG8X/silver teflon PL259s	25.99
19258C-100	100' RG8X/silver teflon PL259s	29.99
18240RBS-3	3' RG58/BNC male- SO-239	15.99
183242SBJ-3	3' RG142/SMA male - BNC female	20.99
19258CB-3	3' RG8X/male BNCs	12.99
19258CB-6	6' RG8X/male BNCs	13.99
235	1" tinned copper ground braid .....per ft	.99
235	.....100 ft. Roll	92.99
2332	½" tinned copper ground braid ...per ft.	.59
2332	.....100 ft. Roll	52.99

CASTLE RIDGE (CRO)

SOLID BASE COPPERWELD ANTENNA WIRE

AN-122	100 feet No. 12	$ 24.99
AN-123	150 feet No. 12	34.99
AN-124	250 feet No. 12	49.99
AN-126	500 feet No. 12	89.99
AN-128	1000 feet No. 12	149.99
AN-142	100 feet No. 14	19.99
AN-143	150 feet No. 14	24.99
AN-144	250 feet No. 14	34.99
AN-146	500 feet No. 14	59.99
AN-148	1000 feet No. 14	104.99
AN-181	250 feet No. 18	14.99
AN-182	500 feet No. 18	24.99

CELESTRON (CEL)

4020	40x dissecting microscope	$ 79.99
4030	40-500x educational microscope	119.99
4050	40/100/400x biological microscope	199.99
11011	Nexstar 8 telescope	1499.99
11015	Celestar 8 telescope	1099.99
94162	Solar filter for Nexstra 8/Celestar 8	79.99
11032	Nexstar 5 telescope w/tripod	1149.99
93593	Deluxe tripod for 11032/Nexstar 5 ..	199.99
11051	G-5 w/motor drive telescope	749.99
11052	Nexstar 8 GPS telescope	2499.99
21072	Firstscope 80 EQ-WA refractor telescope D	249.99
94135	Solar filter for Firstscope 80EQ-WA .	34.99
22062*	Nexstar 60GT telescope	249.99
	***$10 consumer rebate from Celestron thru 1/10/02**	
22082*	Nexstar 80GT telescope	349.99
	***$15 consumer rebate from Celestron thru 1/10/02**	

Order Toll Free at 4 Locations Nation-Wide 1-800-558-0411 WI
Browse Our Store On-Line at www.aesham.com

Celestron - continued

	AES Price
94135 Solar filter for Nexstar 60GT/80GT	34.99
31034 Tabletop 76 reflector telescope	99.99
31052 Firstscope 114 Premium reflector telescope D	299.99
31056 C150-HD reflector telescope	449.99
31142* Nexstar 114GT telescope	439.99
*$25 consumer rebate from Celestron thru 1/10/02	
50025 30mm mini spotting scope w/tripod	59.99
52200 60mm pro zoom spotting scope	199.99
52211 60mm wildlife zoom spotting scope/tripod	169.99

LENSES (not for 31034)

93213 1.25" 2x economy Barlow lens D	$ 14.99
93308 1.25" 6mm ocular Plossl lens	49.99
93310 1.25" 10mm ocular Plossl lens	49.99
93312 1.25" 17mm ocular Plossl lens	49.99
93342 1.25" 17mm ocular Plossl lens D	39.99
93507 1.25" 2x deluxe Barlow lens	59.99
51630 Star pointer finderscope	30.99
93590 Red Astro Lite flashlight	5.99
93700 CD-ROM "The Sky for Celestron"	19.99
93720-40 Planisphere & planet finder	9.99
93722 Sky Map	19.99
94118-S1 1.25" eyepc filt set; 21/80A/ND-13/polar	69.99
94119-A 1.25" moon filter	16.99
94126-A Model A LPR filter; for 1¼" eyepieces	69.99

Sorry, no exports on Celestron products.

CENTAUR (CEN)

B11W10-50 1:1 3kw PEP balun for dipole	$ 54.99
B11Y10-50 1:1 3kw PEP balun for yagi	54.99
B41Y10-50 4:1 3kw PEP balun for yagi	69.99
B41LW10-50 4:1 ladder line to coax balun	69.99

Channel Master (CHA)

9521A Prog light duty rotor/IR rem cont/3-wire	$ 99.99

CLOCKS

BMI 972A 12" 12-hour wall clock Δ	$ 19.99
BMI 972AD 14" 12/24-hour wall clock	32.99
BMI 973A 12" 24-hour wall clock	49.99
MFJ 105C 24-hour quartz wall clock	19.99
MFJ 107B 24-hour digital clock	9.99
MFJ 108B 24/12-hour dual disp digital clock	19.99
MFJ 112B Deluxe world map clock	24.99
MFJ 113 24/12-hr 1.8" LED clock/batt back-up	19.99
MFJ 114B Giant LED desk/wall 12/24-hr clock D	49.99
MFJ 115 DX'er 24-hr analog world wall clock	24.99
MFJ 116DC 12-hour 12vdc LED clock Δ	9.99
MFJ 118 Giant 24/12 hour LCD clock	24.99
MFJ 119 Giant 24/12 hr LCD/in temp clock D	24.99
MFJ 119B Giant 24/12 hour LCD/in temp clock Δ	29.99
MFJ 123 Eternity solar atomic clock	79.99
MFJ 125 Calendar 24-hour analog wall clock	29.99
MFJ 126 Multi-color 12-hr quartz wall/24-hr trim Δ	19.99
MFJ 128 12/24 hr analog atomic wall clock	59.99
MFJ 132AT 12-hour LCD see-thru clock Δ	19.99
MFJ 134AT 24-hour LCD see-thru clock Δ	19.99
MFJ 152B Thermo clock; in/out temp/12/24-hr	24.99
ORE BA-812E The weather clock	49.99
ORE RM-116E Exactset radio controlled clock	39.99

COAX SEAL (UNV)

104 ½" x 60" coax seal	$ 3.99

Coaxial Dynamics (COA)

81000-A Wattmeter w/SO-239s	$260.99
83000-A Peak reading wattmeter w/SO-239s	393.99
82004 50w 2-30MHz element	87.99
82005 100w 2-30MHz element	87.99
82006 250w 2-30MHz element	87.99
82007 500w 2-30MHz element	87.99
82008 1000w 2-30MHz element	87.99
82009 2500w 2-30MHz element	125.99
82010 5000w 2-30MHz element	125.99
82013 10w 25-60MHz element	71.99
82014 25w 25-60MHz element	71.99

Coaxial Dyn - continued

	AES Price
82015 50w 25-60MHz element	71.99
82016 100w 25-60MHz element	71.99
82029 10w 100-250MHz element	71.99
82031 50w 100-250MHz element	71.99
82033 250w 100-250MHz element	71.99
82046 10w 400-1000MHz element	71.99
82048 50w 400-1000MHz element	71.99
82049 100w 400-1000MHz element	71.99
88000 N female quick match connector each	9.99
88800 Carrying case for meter	55.99

COBRA (COB)

10 Ultra AT AM Mobile CB/magnet mt ant D	$ 34.99
18WX ST Sound Tracker AM Mobile CB w/WX D	69.99
25LTD ST Sound Tracker AM Mobile CB D	69.99
25NW ST Night Watch Sound Tracker AM Mob CB D	89.99
29NW ST Night Watch Sound Tracker AM Mob CB D	109.99
HH-36 ST Sound Tracker handheld CB D	44.99
19DX III AM Mobile CB	49.99
19LTD II AM Mobile CB	54.99
21LTD ST Sound Tracker AM Mobile CB	74.99
25LTD (25LTD Classic) AM Mobile CB	89.99
25WXNW ST Night Watch Sound Tracker AM Mob CB/WX	109.99
29LTD (29LTD Classic) AM Mobile CB	99.99
29NW Night Watch AM Mobile CB	119.99
29WXNW ST Night Watch Sound Tracker AM Mob CB/WX	129.99
75WX ST Sound Tracker AM Mobile CB w/WX	99.99
HH-37 ST Sound Tracker handheld CB	59.99
HH-38WX ST Sound Tracker handheld CB w/WX	79.99
148NW ST Night Watch Sound Tracker SB/AM Mob CB	179.99
AT-60 Trunk lip/roof mt CB antenna D	12.99
CA-77 Noise canx/amplified mobile mic D	24.99
HGA-1000 Magnet mt CB antenna	24.99
HGM-77 Noise canx/amplified mobile mic	27.99
CP-912 900MHz dig sp spec cordless ph D	39.99
FRS-200 Family radio service handheld D	39.99

COMET (CMT)

MOBILE ANTENNAS

B-10 2m/440 2.15db 12" cell look-alike ant	$ 39.99
B-10NMO 2m/440 2.15db 12" cell look-alike NMO	39.99
B-20 2m/440 2.15/5db 30" cell look-alike ant	49.99
B-20NMO 2m/440 2.15db/5db 30" cell look NMO	49.99
CA-2X4SR 2m/440 3.8/6.2db 40" mob ant	64.99
HA-050 6m 33" ¼ wave mobile antenna	72.99
HP-32 2m/440 3/5.5db 34" 350/250w ant	89.99
M-24B 2m/440 1.7/4.1db mag mt ant w/BNC	39.99
M-24M 2m/440 1.7/4.1db mag ant w/PL259	39.99
SBB-1 2m/440 1.5/2.15db 16" flex mobile	39.99
SBB-1NMO 2m/440 1.5/2.15db 16" flex NMO	39.99
SBB-2 2m/440 2.15/3.8db 18" black mobile	39.99
SBB-2NMO 2m/440 2.15/3.8db 18" blk NMO	39.99
SBB-5 2m/440 3/5.5db 38" black mobile ant	54.99
SBB-5NMO 2m/440 3/5.5db 38" black NMO	54.99
SBB-7 2m/440 4.5/7.2db 4' 7" black mob ant	74.99
SBB-7NMO 2m/440 4.5/7.2db 4' 7" blk NMO	74.99
SB-14 6m/2m/440 43" chrome mobile ant	64.99
SB-15 6m/2m/440 2.15/4.5/7.2db 5' chr mob	79.99
SBB-25 2m 4.1db black mobile antenna	44.99
SBB-25NMO 2m 4.1db black NMO mob ant	44.99
SB-94 2m/440/1.2 chr 2.15/5.1/7.2db 24" N	69.99
SB-97 2m/440/1.2 3/6.8/9.6db 39" type N	79.99
SB-123 1.2GHz 7.2db 24" type N mobile ant	49.99
SBB-224 2m/220/440 2.15/3.2/5.5 blk mob	74.99
SBB-224NMO 2m/220/440 2.15/3.2/5.5 blk NMO	74.99
SF-245 2.4 GHz 7db 18" fg type N ant	61.99
UHV-6 40/15/10/6/2m/440 7' 2" mobile ant	149.99
L-14 20m loading coil for UHV-6/CA-HV	29.99
L-18 17m loading coil for UHV-6/CA-HV	29.99
Z-750 2m/440 2.1/5.5db 39" theft resistant	62.99
Z-780 2m/440 4.5/7.2db 5' theft resistant	82.99

MOBILE MOUNTS

3D4M Mobile mt, 13' coax w/UHF connectors	$ 24.99
3D4N Mobile mt, 13' coax w/type N	28.99

Comet - continued

	AES Price
3D5M Mobile mt, 16.5' coax w/UHF connectors	27.99
5D4N Roof mount, 13' coax w/type N	31.99
AD-10N NMO mount to female N adapter	17.99
AD-15M NMO mount to SO-239 adapter	17.99
AD-25M SO-239 to NMO mount adapter	14.99
CK-3M Dlx 2-step 10' cable w/UHF connectors	33.99
CK-3M5 Dlx 2-step 16.5' cable w/UHF connects	39.99
CK-5N Dlx 13' cable assembly w/type N	47.99
CM-5M Hvy duty mag mt, coax, max 4' ant	24.99
CQ-5M Dlx black QD trunk lip mt w/17' coax	66.99
CQ-5N Dlx black QD tnk lip mt/17' coax/N	69.99
CR-5M Std coax assy, 16.5' coax, UHF conn	19.99
CT-5M Trunk lip mount w/16.5' coax	39.99
GR-5M Dlx tnk lip mt w/ coax; matches SB	67.99
GR-5N Dlx N tnk lip mt w/ coax; matches SB	69.99
RS-9 Trunk lip mount, no coax	11.99
RS-520 Mini heavy duty trunk/hatch mount	28.99
RS-560C Luggage rack mount, no coax	35.99
RS-720 Hatch/rear door/tnk multi-adj mt	28.99
RS-720NMO Hch/rear door/tnk multi-adj NMO mt	28.99
RS-730 HD rear van/SUV door/tnk lip mt, no coax	29.99
WS-1M Window clip mt w/UHF connectors	59.99

BASE STATION ANTENNAS

CA-712EF 440 9db 10' 5" base antenna	$109.99
CA-ABC22A 2m 6,5db 9' 5" base/rptr ant	69.99
CA-ABC23 2m 7.8 db 13' 4" base/rptr ant	99.99
CA-F72GF 440-470 6db 3' 6" tunable ant	109.99
CA-52HB4 6m 4 el 10.4db 7' 10" bm beam	119.99
CX-333 2m/220/440 6.5/7.8/9db 10.25' ant	179.99
CYA-240 2m/440 9.5/11.6 3/5el 5.25' boom D	69.99
CYA-1216E 1.2GHz 16el 16.6db 4' 5" bm N beam	139.99
CYA-2412 2.4GHz 12el 15.5db 2' 6" bm N beam	179.99
DS-15 6m/2m/440/900/1.2 discone antenna	99.99
GH-50 6m 2.15db 7' 10" fg base antenna	99.99
GP-3 2m/440 4.5/7.2db 5' 11" base/rptr ant	99.99
GP-6 2m/440 6.5/9db 10' 2" base/rptr ant	149.99
GP-9 2m/440 8.5/11.9db 17' 8" base/rptr	179.99
GP-9N 2m/440 8.5/11.9db 17' 8" N base/rptr	179.99
GP-15 6/2m/440 3/6.2/8.6db 7' 11" base	154.99
GP-21/CA-1221S 1.2 14.8db 8' N base/rptr	149.99
GP-24 2.4GHz 12.4db 5' 11" N base/rptr	199.99
GP-24S 2.4GHz 9.9db 3' 7" N base/rptr	139.99
GP-93 2m/440/1.2 4.5/7.2/10db 5' 7" type N	129.99
GP-98 2m/440/1.2 6.5/9/13.5db 9' 8" N ant	189.99
KP-20 900 MHz 9.2db 7' 4" type N base/rptr	112.99
PYA-913 900MHz 13el 15.8db 4' 8" type N beam	159.99

DUPLEXERS AND TRIPLEXERS

CF-142 1.3-150/200-480 600/400w UHF/leads	$ 69.99
CF-360A 1.3-30/50-470 600w UHF w/leads	69.99
CF-360B 1.3-30/50-470 600w UHF/common lead	69.99
CF-416A 2m/440 800/500w UHF w/leads	46.99
CF-416C 2m/440 800/500w N/UHF/N leads	49.99
CF-416W 1.3-250/400-1400 400/200w N/leads	69.99
CF-530 1.3-90/125-470 600w UHF w/leads	69.99
CF-706A 1.3-56/75-470 350w UHF w/leads	69.99
CF-4160I 2m/440 800/500w UHF/UHF/N, no leads	45.99
CF-4160J 2m/440 800/500w SO239, no leads	53.99
CF-4160K 2m/440 800/500w all UHF, no leads	45.99
CFX-324A 2m/220/440 600w UHF w/leads	88.99
CFX-324B 2m/220/440 600w UHF, no leads	85.99
CFX-514 HF/2m/440 800/800/500w UHF w/leads	79.99
CFX-514J HF/2m/440 800/800/500w UHF, no leads	74.99
CFX-514N HF/2m/440 800/800/500w UHF/N w/leads	79.99
CFX-4310C 1.3-150/440/1.2 triplexer, no leads	79.99
CFX-5140 HF/6m/2m/440 800/800/500w UHF, no leads	74.99

HT AND HAND-HELD SCANNER ANTENNAS

BNC-24 2m/440 17" 2.15/5.3db BNC whip	$ 22.99
CH-32 2m/440 1.75" BNC Miracle Baby ant	29.99
CH-75 2m/440 0/3.2db 14.75" BNC ant	25.99
CHF-412 40/15/2m 28" BNC duck; FT-817	89.99
CHF-816 80/10/6m 28" BNC duck; FT-817	94.99
SH-55 2m/440 1.5/3.2db 15" BNC ant	33.99
SH-95 2m/440/1.2 1.5/2.15/5.5db BNC ant	34.99

Comet - continued

	AES Price
SMA-3 2m/440 1.2/1.7db 9.75" SMA ant	39.99
SMA-24 2m/440 17" 2.15/5.3db SMA whip	22.99
SMA-501 2m/440/900 1.5" SMA antenna	29.99
SMA-503 2m/440 8.75" SMA antenna	29.99
SMA-703 2m/440/1.2GHz 6.5" SMA ant	31.99

COMM SPEC (COM)

SS-64 64-tone mini prog CTCSS encoder	$ 28.99
TE-32 32-tone CTCSS prog encoder box	49.99
TE-64 64-tone CTCSS/burst switch enc box Δ	49.99
TS-64DS 64-tone CTCSS prog encoder/decoder	57.99
DTD-1 DTMF decoder	49.99
ID-8 Automatic morse station identifier	69.99

CONNECTORS

AMPHENOL COAX CONNECTORS (AMP)

83-1SP-1050 Male coax plug (PL-259)	$ 1.99
83-1SP Silver plated coax plug (PL-259)	2.99
Van Gorden (**VAN**) **silver plated** teflon PL-259	2.99
83-185 Reducer for RG-58 (UG-175)	.99
83-168 Reducer; RG-59/RG-8X (UG-176)	.99
83-1AP Right angle adaptor (UG-646)	6.99
83-1J Double female adaptor (PL-258)	4.99
83-1R Female chassis mt socket (SO-239)	2.99
83-1H Hood; in-line use w/83-1R (UG-106)	3.99
83-1T T-connector adaptor (M-358)	9.99
83-877 Double male adaptor	10.99
83-878 Single hole ⅝" chassis socket	2.99
31-002 BNC male connector for RG-58	4.99
31-012 BNC male connector; RG-59/RG-8X	5.99
31-221 BNC female chassis socket	2.99
82-24 Type N female chassis mt socket	5.99
82-61 Type N male connector for RG-8	7.99
82-64 Type N right angle adaptor †	14.99
(VAN) **N connector** Type N connector for 9913	4.99
82-202-1006 Type N male; 8214/9913/9913F	7.99
82-209 Type N female in-line for RG-8	7.99
34025 Type N male connector for RG-58	6.99

AMPHENOL COAX ADAPTORS (AMP)

2900 SO-239 to BNC male adaptor	$ 9.99
4400 SO-239 to type N male adaptor	14.99
34125 Type N female - PL-259 adapt	20.99
31-28 BNC female to PL-259 adaptor	14.99
(HOU) **SMA-872** SO-239 to SMA plug adaptor	5.99

AIM CONNECTORS, PLUGS & ADAPTORS (AIM)

19-1289 8-pin female mic plug	$ 4.99
25-7351 Chassis mt SO-239 double female	3.99
25-7365 BNC female to SO-239	3.99
25-7420 BNC male to SO-239	2.99
26-8010 Type N double female	3.99
26-8011 Type N chassis mount	2.99
26-8015 N male to SO-239	4.99
26-8016 BNC female to N male	4.99
26-8017 BNC male to N female	4.99
26-8027 N male for RG-8X	4.99
27-8120 BNC female to PL-259	2.99
27-8130 BNC double male	3.99
27-8140 BNC T; 2 female, 1 male	2.99
27-8142 BNC T, 3 male Δ	.49
27-8450 BNC chassis mt, 4 screw holes	2.99
27-8460 ⅜" hole BNC chassis mt	1.99
27-8470 Dual BNC chassis mount	3.99
29-3855 BNC female to SMA male	3.99
29-4140 SO-239 to mini PL-259	2.99

CONNECTORS UNLIMITED (CON)

1721 7-pin DIN plug Δ	$ .29

Switchcraft 1/4" Plugs/Solder Terminals (SWI)

220 2-cond, plastic, screw terms, rt ang plug D	$ .99
250 2-conductor, plastic handle Δ	.99
280 2-conductor, metal handle Δ	2.99

SWITCHCRAFT PHONO-TYPE CONNECTOR (SWI)

3501MC Phono plug with cable clamps Δ	$ .19

VANCO MICROPHONE CONNECTORS (VCO)

Connectors - continued

	AES Price
CBC-2 2-pin female mic plug Δ	$ 1.69
CBC-2P Panel mt 2-pin male Δ	.49
CBC-3 3-pin female mic plug Δ	1.49
CBC-3P Panel mt 3-pin male Δ	.49
CBC-4 4-pin female mic plug	4.99
CBC-4P Panel mt 4-pin male Δ	.99
CBC-5 5-pin female mic plug	3.99
CBC-5P Panel mt 5-pin male Δ	.69
CBC-6 6-pin female mic plug	4.99
CBC-6P Panel mt 6-pin male Δ	.99
(AIM) **19-1289** 8-pin female mic plug	4.99
CBC-8P Panel mt 8-pin male	5.99
P-5D 5-pin DIN plug Δ	.29

KENWOOD DIN PLUGS (KEN)

7-pin DIN plug	$ 4.99
8-pin DIN plug	6.99
13-pin DIN plug	9.99

VANCO Mic Holders/Mini Plugs/Cig Plugs (VCO)

MH-1 Magnetic mic holder	$ 1.99
MH-2 Regular mic holder	1.99
P-25 2.5mm sub-miniature phone plug Δ	.29
P-35 3.5mm miniature phone plug	.99
(HOU) **AP-115** ½" metal stereo plug	2.99
(HOU) **AP-135** 3.5mm stereo mini phone plug	.99
P-12R 2-contact cigarette plug	1.99
P-12V Cig lighter plug w/leads	1.99
P-212 2-outlet cigarette plug adapter	4.99
P-212B Dual cigarette lighter socket adapter	8.99

Connect Systems (CSY)

CS-800 Full duplex patch & repeater controller	$369.99
CS-900 Simplex interconnect	369.99

COURIER (COU)

M-54 5w 4ch VHF HH/batt/cgr/151.625 Δ	$169.99
M-510 5w 10ch synth VHF FM hand-held Δ	199.99
MU-510 5w 10ch synth UHF FM hand-held Δ	169.99
CCK-510 Cloning cable; M-510/MU-510 Δ	7.99
CPK-510 Prog kit for M-510/MU-510 Δ	89.99

CROSS DEVICE (CRS)

STUF Coax connector waterproofing filler	$ 4.99

CUSHCRAFT (CUS)

At Cushcraft's request, amateur radio dealers are not authorized warranty depots for Cushcraft Antennas. All warranty issues should be directed to the Technical Support Department/Warranty at Cushcraft (603) 627-7877.

VHF/UHF FM BEAMS* (Vertical polarization)

A148-3S 2m, 3 el wideband beam, 7.8db	$ 62.99
A148-10S 2m, 10 el wideband beam, 13.2db	99.99
A449-6S 440 MHz, 6 el, 3' boom, 10 db	58.99
A449-11S 440 MHz, 11 el, 4.5' boom, 13 db	79.99

*Antennas can be mounted vertically or horizontally!

2M/440 FM BEAMS* (Vertical polarization)

A270-6S 2m/440, 3/3 el, 2.8' boom, 7.8 db	$ 79.99
A270-10S 2m/440, 5/5 el, 6.17' boom, 10 db	99.99

*Antennas can be mounted vertically or horizontally!

TRI-BAND 6M/2M/440 BEAMS

A6270-13S 6m/2m/440, 3/5/5el, 8.66'bm, 8/10/10db	$169.99
ASL-670 50-450MHz 14el 6.7' boom 6db LP	249.99

FM RINGOS - 1/2 Wave Verticals

AR-10 10m FM Ringo, 17.6', 3db, 1000w	$ 79.99
AR-6 6m FM Ringo, 10.1', 3db, 1000w	69.99
AR-2 2m FM Ringo, 3.9', 3db, 1000w	49.99
AR-450 440MHz FM Ringo, 1.4', 3db, 500w	36.99

RINGO RANGERS - FM Verticals

ARX-2 2m FM Ringo Ranger	$ 59.99
ARX-2B 2m FM Ringo Ranger II, 14', 7db, 1000w	69.99
ARX-220B 220 FM Ringo Ranger II, 9.3', 7db, 500w	69.99
ARX-450B 440FM Ringo Ranger II, 4.9', 7db, 500w	69.99

DUAL-BAND 2M/440 FM RINGOS

AR-270 2m/440MHz FM, 3.75', 3/5.5db, 250w	$ 94.99
AR-270B 2m/440 MHz FM, 7.7', 5.5/7.5db, 250w	99.99

Cushcraft - continued

	AES Price

TWIST, OSCAR BEAMS (Horiz/Vert Polarization)

A148-20T 2m 20el 10.8'bm 11.1db twist	$139.99
719B 432 ,19 el,, 13.5' boom, 15.5db	149.99

BOOMER ANTENNAS

124WB 2m Boomer, 4 el, 4' boom, 10.2 db	$ 89.99
13B2 2m Boomer, 13 el, 15' boom, 15.8 db	139.99
17B2 2m Boomer, 17 el, 31' boom, 18 db	239.99
26B2 2 13B2s vertically stacked Δ	329.99
224WB 220 Boomer, 4 el, 3' boom, 10.2db	74.99

BOOMER STACKING KITS*

617-SK Harness, pwr divider; 2 6176Bs D	$ 29.99
22N-SK Harness, pwr divider; 2 17B2s D	119.99
26B2-VPK Vertical polar kit; 2 13B2s D	129.99
PD-2 Power divider for 2 13B2s	64.99
PD-4 Power divider for 4 13B2s	79.99

*Prices are for stacking kits only

VHF/UHF BEAMS* (Horizontal polarization)

A50-3S 6m, 3 el, 6' boom, 8 db, stainless hdwre	$114.99
A50-5S 6m, 5 el, 12' boom, 10 db, stainless hdwre	179.99
A50-6S 6m, 6 el, 20' boom, 11db, stainless hdwre	289.99
A148-10S 2m, 10 el wideband beam	99.99
A430-11S 430 MHz, 11 el, 4' boom, 13 db	79.99

*Antennas can be mounted vertically or horizontally!

MOBILE ANTENNAS

CS-28M 10m magnet mt antenna	$ 64.99
CS-50M 6m magnet mt 3 db antenna	64.99
CS-147M 2m magnet mt 3 db antenna	64.99
CS-147A 2m coil & whip only	46.99
CS-220M 220 magnet mt 3 db antenna	64.99
CS-450M 440 magnet mt 5 db antenna	64.99

DUAL-BAND 2M/440 MOBILE ANTENNAS

CS-270M 2m/440 3.7/6 db magnet mt ant	$ 84.99
CS-270A 2m/440 coil & whip only	59.99

MOUNTS ONLY FOR MOBILE ANTENNAS

CS-MG Magnetic mount	$ 30.99
CS-MGN Magnetic mount w/N connector	35.99
CS-TL Trunk lip mount	30.99

MULTIBAND HF VERTICAL ANTENNAS

MA-5V 20/17/15/12/10m 8.8' vertical ant	$199.99
R-6000 20/17/15/12/10/6m 19' vertical	319.99
R-8 40/30/20/17/15/12/10/6m 28.5' vert	469.99
R-8GK Guy kit for R-8	49.99

ROTATABLE HF DIPOLES

D-3 20/15/10m World Ranger dipole	$229.99
D-3W 30/17/12m rotatable dipole	229.99
D-4 40/20/15/10m World Ranger dipole	339.99
D-40 40m World Ranger dipole	289.99

BIG THUNDER HF TRI-BAND BEAMS

X-940 40m 1 element add-on kit for X-9 D	$189.99
X-7 20/15/10m, 7 el, 18' boom, 12.5/13db	649.99
X-740 40m add-on kit for X-7	319.99

BIG THUNDER HF MONOBAND BEAMS

XM-240 40m, 2 el, 23' boom, 7 db	$699.99
TEN-3 10m, 3 el, 8' boom, 8 db	199.99

MULTIBAND HF BEAM ANTENNAS

A-3S 20/15/10m, 3el, 14'bm, 8db, stainless hdwr	$429.99
A-743 40m or 10 MHz add-on kit; A-3/A-3S	169.99
A-4S 20/15/10m, 4el, 18'bm, 8.9db, stainless hdwre	529.99
A-744 40m or 10 MHz add-on kit; A-4/A-4S	169.99
A-3WS 17 & 12m, 3 el, 14' boom, 8 db	349.99
A-103 30m add-on kit for A-3WS	169.99
ASL-2010 13.5-32MHz 8el 18' bm 6.4db LP	729.99
MA-5B 20/17/15/12/10m 7.3' boom mini beam	269.99

LIGHTNING ARRESTORS

LAC-4 200w SO-239 gas tube arrestor	$ 40.99
LAC-4H 2kw SO-239 gas tube arrestor	45.99
LAC-4N 200w type N gas tube arrestor	52.99
LAC-4NH 2kw type N gas tube arrestor	56.99
LC-2 Extra 200w cartridge for LAC-4/4N	17.99
LC-2KW Extra 2kw cartridge for LAC-4H/4NH	20.99
5VB Vinyl connector boots pack of 5	15.99

Order Toll Free at 4 Locations Nation-Wide 1-800-558-0411 WI
Browse Our Store On-Line at www.aesham.com

AES Price

CUTTING EDGE (CUT)

HMP	WorldPack backpack; mini HF Xcvr .....D	$ 57.99
HMP-II	WorldPack II backpack; mini HF Xcvr	67.99
HPP-7A	7AH gel-cell w/overnight cgr .....D	59.99
HPP-8A	8AH gel-cell w/overnight cgr	73.99
HP-7AF	7AH gel-cell w/2.5 hr fast cgr .....D	99.99
HP-8AF	8AH gel-cell w/2.5 hr fast cgr	129.99
PPMMDC	Multi-tip/volt reg DC-DC adapt	22.99
PPSC-5	5w flexible solar cell	99.99
PPSC-32	32w flexible solar cell	299.99
PPSCA	Solar cell cigarette adapter	10.99
HM-817	WorldPouch; Yaesu FT-817	73.99
HI-D1	Radio glove; Ali DJC5T/DJX2T/Yae VX1R	19.99
HI-5X	Radio glove; Ico IC-Q7/R-2/Yae FT-11	19.99
HI-51	Radio glove; Yaesu VX-5R	19.99
HI-6	Radio glove; ADI PR52/Ali S11/V5/Ico T81/Yae FT50	19.99
HI-61	Radio glove; ADI AT-201HP/Yae VX-150	19.99

DCI (DCI)

145-2H	2m 144-146MHz 200w bandpass filter	$ 89.99
146-4H	2m 144-148MHz 200w bandpass filter	89.99
223.5-3H	222-225MHz 200w bandpass filter	89.99
	2m/220 models w/N connectors add $10 special order	
435-10C	430-440MHz 200w N bandpass filt	109.99
445-10C	440-450MHz 200w N bandpass filt	109.99

DC SALES (DCS)

Tenna Hitch	⅜-24 trailer hitch antenna mt	$ 38.99

DAIWA (DAI)

CN-101	1.8-150 15/150/1.5kw SWR/pwr meter/light	$ 99.99
CN-103M	140-525 20/200w SWR/power meter	99.99
CN-410M	3.5-150 15/150w mobile meter	104.99
CN-460M	140-450 15/150w mobile meter	104.99
CN-801H	1.8-200 20/200/2kw SWR/pwr meter	149.99
CN-801V	140-525 20/200w SWR/power meter	154.99
CS-201	2-position 600 MHz coax switch	26.99
CS-401	4-position 800 MHz coax switch	149.99

DAVIS (DAV)

6150	Wireless Vantage Pro weather station	$499.99
7400	Perception II indoor WX unit	129.99
7425	Wizard III weather station	169.99
7440	Monitor II weather station	269.99
7852	Rain Collector II, 0.01"	69.99
7977	Electronic rain counter, 0.01" .....D	6.99
7859	External temp/humd Sensor II; 7440	109.99
7862	Weatherlink Win interface/software	139.99
7866	Weatherlink Mac interface/software	139.99
7870	Modem adapter for 7862/7866 ...Δ	3.99
7867	Weatherlink Mac to Win conv kit ....Δ	19.99
7868	Weatherlink Win to Mac conv kit ....Δ	19.99
7873	Cig lighter power cord	9.99
7876-040	4-conductor 40' extension cable	18.99
7878-040	6-conductor 40' extension cable	22.99
7880	8-conductor 25' junction box cable Δ	8.99
7881	8-conductor 50' junction box cable	25.99
7882	8-conductor 100' junction box cable	45.99
7890	Mast mount for anemometer	16.99
0131	Weather forecasting quick reference card	9.99
0271	Turbo Meter handheld dig wind indicator	99.99
0281	Wind Wizard handheld wind indicator	46.99

DELORME (DEL)

Topo USA	US topographical maps CD-ROM	$ 99.99
Earthmate	Laptop PC GPS/Street Atlas soft	139.99

DIAMOND (DIA)

SWR/POWER METERS

SX-20C	HF/6m/2m 30/300w meter	$ 89.99
SX-40C	144-470 (220 w/correction) 15/150w	79.99
SX-100	1.6-60 MHz 30/300/3kw PEP meter	134.99
SX-200	1.8-200 MHz 5/20/200w PEP meter	94.99
SX-400	140-525 MHz 5/20/200w PEP meter	114.99
SX-600	Dual band 1.8-160 /140-525 200w PEP mtr	169.99

Diamond - continued

AES Price

SX-1000	1.8-160/430-1300MHz 200w PEP meter	214.99

HT & HANDHELD SCANNER ANTENNAS

RH-3	2m/440 1.75" BNC mini HT duck	$ 24.99
RH-77CA	2m/440 15" BNC rubber gain ant	24.99
RH-205	2m ⅝ wave telescopic HT antenna	24.99
RH-519	2m/440 8.3" flexible BNC whip	27.99
RH-707	2m/440 8¾" tiltable BNC whip	33.99
RH-951S	2m/440/1.2GHz 15" BNC slim duck	44.99
SRH-519	2m/440 8.3" flexible SMA whip	32.99
SRH-805	2m/440/1.2GHz 1.75" SMA ant	27.99
SRH-815	2m/440/1.2GHz 6" flex SMA whip	36.99
SRH-999	6m/2m/440/1.2GHz 19.5" SMA whip	59.99

MONO-BAND MOBILE ANTENNAS

HF-6FX	6m 2db 40" mobile antenna	$ 69.99
HF-50CX	6m 3.5db 75" mobile antenna	99.99
M-285	2m 3.4db 52.4" mobile antenna	31.99
M-685	6m 2db 52.4" mobile antenna	31.99
MG-200	2.4GHz 7db 23.6" N mobile ant	99.99
NR-2C	2m 4.1db 55.5" mobile antenna	39.99
NR-22L	2m 6db 96.8" mobile antenna	69.99
SG-2000HD	2m 5.2db 62.6" 250w mob ant	89.99
SG-6000NMO	52-54 2.15db 39" NMO mob .D	59.99

DUAL-BAND MOBILE ANTENNAS

CR-224A	2m/220 5/6db 69" mobile ant .....D	$ 89.99
MR-77	2m/440 2.15/3.4db 20" magnetic ant	39.99
NR-72BNMO	Black 2m/440 2.15db 14" NMO	41.99
NR-73BNMO	Blk 2m/440 2.15/5.5db 34" NMO	57.99
NR-770HA	2m/440 3/5.5db 40" mobile ant	56.99
NR-770HB	Black 2m/440 3/5.5db 40" mobile	59.99
NR-770HNMO	2m/440 3/5.5db 40" NMO mobile	56.99
NR-770HBNMO	Blk 2m/440 3/5.5db 40" NMO	59.99
NR-770RA	2m/440 3/5.5db 39" mobile ant	51.99
SG-M510	2m/440 2.15/5.5db 37" mob ant	59.99
SG-7000A	2m/440 2.15/3.8db 19" mobile	69.99
SG-7500A	2m/440 3.5/6db 41" mobile ant	79.99
SG-7500NMO	2m/440 3.5/6db 41" NMO ant	79.99
SG-7900A	2m/440 5/7.6db 62" mobile ant	114.99

TRI-BAND MOBILE ANTENNAS

CR-320A	2m/220/440 2.15/3.8/5.5db 36"	$ 89.99
CR-627B	6m/2m/440 2.15/4.5/7.2db 60" ant	99.99
CR-627BNMO	6m/2m/440 2.15/4.5/7.2db 60"	99.99
HV-7A	10/6/2m/440 54" UHF mount mobile ant	109.99
HVC-7	40m loading coil for HV-7A/MV-3A	39.99
HVC-14	20m loading coil for HV-7A/MV-3A	37.99
HVC-18	17m loading coil for HV-7A/MV-3A	37.99
HVC-21	15m loading coil for HV-7A/MV-3A	27.99
NR-2000NA	2m/440/1.2 3.15/6.3/9.7db 39" N mob	89.99
SG-M911	6m/2m/440 2.15/3/5.8db 41" mob	69.99

MAGNET MOUNTS

DPK-4NM-M	Hvy mag mt, Yae N, 45" max ..D	$ 19.99
DPK-4NM-N	Hvy dty mag mt, cbl, N, 45" max	45.99
K-702M	Hvy duty mag mt, 6⅜" dia, 50" max	49.99
SPM-35	Hvy duty mag mt, cable, 45" max	39.99
SPM-NMO	Hvy dty NMO mag mt, cbl, 45" max	44.99

TRUNK LIP MOUNTING KITS

K-200	Folding hatch/tnk mt; NR/SG ants ...Δ	$ 19.99
K-200KM	Folding hatch/tnk mt/coax; NR/SG	62.99
K-400	Hatch/trunk mt; NR/SG antennas	39.99
K-400C	Hatch/trunk mt w/coax; UHF mount	69.99
K-400CNMO	Hatch/trunk mt w/coax; NMO mt	69.99
K-400-3/8C	Trunk mount w/6.5' cable; ⅜-24	69.99
C-101-3/8C	6.5' replacement coax; K-400-3/8C	29.99
C-110	10' extension cable for K-400-3/8C	14.99
K-412C	Light duty hatch/tnk mt w/coax; UHF mt	64.99
K-412CNMO	Light duty hatch/tnk mt w/coax; NMO	64.99
K-600M	Tilt angle trunk mt w/cable	57.99
K-600P	Tilt angle trunk mt w/cable, Yae N .D	29.99
K-601M	SO-239 hideaway trunk mt, 6' coax	69.99
K-601NMO	NMO hideaway trunk mt, 6' coax	69.99
C-110	10' extension cable for K-601 mts	14.99
K-604M	Tilt angle trunk mt w/flexible cable	57.99
K-9000LRM	Motorized luggage rack mount	109.99
K-9000TM	Motorized trunk/hatchback mt	109.99

Diamond - continued

AES Price

GUTTER MOUNT

K-300	Folding gutter mt; NR/SG antennas .D	$ 24.99

MIRROR & LUGGAGE RACK MOUNTS & KITS

K-540	Mirror/luggage rack mt; under 45"	$ 35.99
K-540KM	Mirror/luggage rack mt w/coax	59.99
K-550*	Luggage mt; new mini vans (use GLP)	44.99
K-550KM*	Luggage mt w/SO-239 base/coax	69.99
	*K-550 series not recommended for Yaesu ATAS-100	

MOUNTING GROUP HARDWARE

C-101	SO-239 mt, 6.5' RG-316 low-loss coax	$ 29.99
C-101NMO	NMO mt, 6.5' RG-316 low-loss coax	29.99
C-104SMA	4' RG-58 ext cbl; SMA male & SO-239	16.99
C-105SMA	5' RG-58 ext cable; C-101/SMA male	16.99
C-110	10' ext cable; C-101/K-601/K-400-3/8C	14.99
C-110BNC	10' extension cable to BNC male	22.99
C-110SMA	10' RG-58 ext cable; C-101/SMA male	16.99
C-211	SO-239 mt, 6.5' coax, 10' coax entend	39.99
C-213	SO-239 mt, 13.5' RG-316 low-loss coax	37.99
C-213NMO	NMO mt, 13.5' RG-316 low-loss coax	37.99
GLP-5N	UHF mtg grp hrdwr; mini coax, Yae N D	4.99

MULTIBAND HF BASE VERTICAL ANTENNA

CP-6A	75/40/20/15/10/6m 200w PEP 16' vert	$299.99

MONO-BAND BASE STATION ANTENNAS

A-144S5	2m 5 el 37.5" boom 9db beam	$ 59.99
A-430S10	2m 10 el 43" boom 13db beam	69.99
A-502HB	6m 2 el 2.6' boom 6.3db beam	99.99
A-504HB	6m 4 el 10.7' boom 10.8db beam	149.99
CP-22E	2m 6.5db 9' base antenna	59.99
DP-GH62	6m 6db 21' base antenna	147.99
F-22A	2m 6.7db 10.5' base antenna	99.99
F-22J	143.5-146.5MHz 6.7db 10.5' base ant Δ	79.99
F-23A	2m 7.8db 15' base antenna	127.99
F-23C1	148-154MHz 7.8db 15' comm base	173.99
F-23C2	150-160MHz 7.8db 15' comm base	173.99
F-718A	440 11.5db 15' type N base antenna	209.99
F-718L	420-430MHz 11.5db ATV N base ant	219.99
G-200	2.4GHz 11db 58" N base antenna	214.99

DUAL-BAND BASE STATION ANTENNAS

U-200	440/1.2GHz 8.3/11.7db 6' N base ant	$129.99
X-50A	2m/440 4.5/7.2db 5.6' base antenna	99.99
X-50NA	2m/440 4.5/7.2db 5.6' base N ant	99.99
X-200A	2m/440 6/8db 8.3' base antenna	139.99
X-500HA	Hvy duty 2m/440 8.3/11.7db 17.8' ant	239.99
X-500HNA	Hvy duty 2m/440 8.3/11.7db 17.8' N ant	239.99
X-510MA	2m/440 8.3/11.7db 17.2' base ant	189.99
X-510NA	2m/440 8.3/11.7db 17.2' type N ant	189.99
X-700HA	2m/440 9.3/13db 24' type base ant	399.99
X-700HNA	2m/440 9.3/13db 24' type N ant	399.99
X-2200A	2m/220 6/7.8db 11.5' base ant	173.99

TRI-BAND BASE STATION ANTENNAS

D-130J	25-1300 MHz 200w discone ant	$ 89.99
U-5000A	2m/440/1.2GHz 4.5/8.3/11.7db 6' N	139.99
V-2000A	52-54MHz/2m/440 2.1/6.2/8.4db 8.3'	162.99
X-3200A	2m/220/440 6/7.8/8db 10' base	209.99
X-6000A	2m/440/1.2 6.5/9/10db 10.5' N	199.99

DUPLEXERS & TRIPLEXERS

MX-62M	HF-6m &2m/440, 12" cables dplxr	$ 74.99
MX-72D	HF-2m/440 400/150/100w duplexer	43.99
MX-72H	HF-2m/440 duplexer w/12" cables	46.99
MX-72N	HF-2m/440 dplxr, 440 type N, 12" cables	49.99
MX-214D	2m/220 150/100w dplxr, no cables	69.99
MX-324	2m/220/440 triplexer	99.99
MX-324D	2m/220/440 triplexer, no cables	99.99
MX-2000	HF-6m/2m/440 400/400/250w triplexer	84.99
MX-3000	HF-2m/440/1.2 400/200/100w triplexer	79.99
MX-3000N	HF-2m/440/1.2 N triplexer, 12"cbls .D	85.99

ACCESSORIES

CA-35R	DC-500MHz 400w lightning protect	$ 29.99
CX-210A	1.5kw DC-1000MHz coax switch	44.99
CX-210N	1.5kw DC-1500MHz N coax switch	74.99
CX-310A	HD 3-pos DC-800MHz coax switch	83.99
DL-30A	15/100w peak 0-500MHz dummy load	27.99

Diamond - continued

	AES Price
DL-30N 15/100w peak 0-500MHz N dummy load	39.99
GZV-4000 Variable 40A switching ps/meter/spkr	179.99
HB-400 HT air vent dash mount .....D	9.99

DRAKE (DRA)

TNC-270 9600 bps controller; TR-270 .....Δ	$199.99
R-8B Shortwave receiver	1379.99
MS-8 1592 Speaker	49.99
1590 35-55, 108-174 MHz VHF converter	249.99
7852 R-8B technical manual	39.99
1334 Mobile mount kit for SW-1/SW-2 .....Δ	4.99
1591 Interface computer soft; original R-8 ..D	1.99

EASY-UP (UPS OK) (EAS)

EZ 29-24 Double strap chimney mount	$ 12.99
EZ 48-3ABX 3' boxed tripod w/pitch pad kit	24.99
EZ 48-5ABX 5' boxed tripod w/pitch pad kit	34.99
EZ-516 5' 16 ga steel mast .....pick-up only	7.99

EMERSON (EME)

ESR-220 Solar/dynamo AM/FM radio/flashlight	$ 29.99
EVO-6500 900MHz wireless vid obs sys/5" mon	169.99
EVO-6550 2nd 900MHz camera; EVO-6500	99.99
EVS-5000 2.4GHz wireless video/audio system	79.99
PDC-803 Digital compass w/LCD backlight	29.99
RP-001 12-function mini stainless multi tool	6.99
RP-005 6-func flashing safety strobe/reflector	6.99
RP-103 12-function stainless multi tool	6.99

FREEPLAY (BAY)

FPR-1B AM/FM/5.8-18SW 30min Freeplay radio D	$ 49.99
SWL Antenna/FPA-7 Indoor SW antenna .Δ	14.99
FPR-2 AM/FM 60 minute Freeplay radio .....Δ	39.99
FPR-2SC AM/FM/solar clear case Freeplay .Δ	49.99
FPR-2SM AM/FM/solar gray case Freeplay .Δ	39.99
FPR-2SGSW AM/FM/SW/solar 60min Freeplay Δ	69.99
AC Adapter/FPA-3 For FPR-2 series radio Δ	6.99
Headphones/FPA-1 For FPR-2 series .....Δ	7.99
SWL Antenna/FPA-7 Indoor SW ant; 2SGSW Δ	14.99
S360-BL AM/FM/solar trans blue 15 hr Freeplay Δ	39.99
S360-C AM/FM/solar clear case 15 hr Freeplay Δ	39.99
FP-SL Yellow self powered Freeplay lantern Δ	39.99
FP-SL-C-BL Translucent blue self powered lantern Δ	39.99
Bulb/FPA-11 2-pack replacement bulbs .Δ	4.99
FPS-10/FPA-10 Patch cord for 3V output Δ	2.99

GAP VERTICALS (GAP)

DX-VIII Challenger 75*/40/20/15/12/10/6/2m 31.5' *80m CW w/capacitor exchange from GAP	$299.99
Challenger Counterpoise	30.99
(SYN) **100'** 3/32" black double braided rope	6.99
DX-VI Eagle 40/20/17/15/12/10m 21.5' rigid	309.99
DX-IV Voyager 160/80/40/20m 45'; use 350' guy	419.99
Voyager Counterpoise	55.99
(SYN) **350'** 3/16" black double braided rope	39.99
Titan DX 75*/40/30/20/17/15/12/10m, 25' *80m CW w/capacitor exchange from GAP	339.99
100' Guy Kit with clamp	14.99
200' Guy Kit with clamp	22.99
Ground Mount Quick tilt mt for vertical ant	79.99
Ladder Mount Quick tilt mt; campers/RVs	79.99

GARMIN (GAR)

GPS-12CX Color GPS receiver	$269.99
GPS-12XL GPS receiver	219.99
GPS-III Plus Handheld/dash mt mapping GPS	299.99
GA-26C Low prof rem ant/cbl; GPSIII/III Plus	89.99
GA-27C Low prof rem ant/cbl; GPS-12CX/XL	89.99
010-10048-00 Mounting bracket; 12CX/XL	31.99
010-10082-00 Power/data cable	27.99
010-10085-00 Cig lighter adapter cable	23.99
010-10111-00 Mtg bkt; GPS-III Plus	31.99
010-10117-01 Carying case	12.99
010-10121-00 MCX-BNC adapt cbl; 12CX/XL	25.99
010-10141-00 PC interface cable	38.99

Garmin - continued

	AES Price
010-10165-00 PC cable w/cig adapter	45.99
010-10215-00 MapSource US CD;GPS-III Plus	99.99
StreetPilot 12 ch dash mt mapping GPS	469.99
StreetPilot ColorMap 12 ch color mapping GPS	599.99
GA-26C Low prof remote ant w/cable/BNC	89.99
010-10082-00 Power/data cable	27.99
010-10085-00 Cig lighter adapter	23.99
010-10141-00 PC interface cable	38.99
010-10165-00 PC cable w/cig adapter	45.99
010-10199-03 Carrying case .....D	14.99
010-10215-00 MapSource US road&rec CD	99.99
010-10215-03 MapSource MetroGuide CD	149.99
010-10227-00 Blank 8MB memory cartridge	58.99
010-10232-00 Carrying case	24.99
eMAP Deluxe GPS/maping/8MB datacard/PC cbl	299.99
GA-27C Low profile remote ant/cable/MCX	89.99
010-10121-00 MCX to BNC adapter cable	25.99
010-10215-00 MapSource US road&rec CD	99.99
010-10215-03 MapSource MetroGuide CD	149.99
eTREX 12 ch mini GPS receiver	119.99
eTREX Summit 12ch mini GPS/compass/barometric	249.99
010-10203-00 Cig lighter cbl; eMAP & eTREX	39.99
010-10205-00 Data cable; eMAP & eTREX	22.99
010-10206-00 PC interface cbl; eMAP & eTREX	38.99
NavTalk Analog cellular phone/GPS combo Δ	349.99
010-10215-00 MapSource US road&rec CD	99.99
GPS-V Turn-by-turn navigation GPS/software	499.99
GA-26C Low prof remote ant w/cable/BNC	89.99
010-10082-00 Power/data cable	27.99
010-10111-00 Mounting bracket	31.99
010-10117-01 Carying case	12.99
010-10215-03 MapSource MetroGuide CD	149.99

GEOCHRON (GEO)

World Watch Day/night Windows software	$ 49.99
Std Blk/Gold* Std black/gold trim world clock/map	999.99
Std Oak/Gold* Std oak/gold trim world clock/map	999.99

***These items are drop-shipped (shipped direct to you from the Geochron factory). On factory drop-shipments we prefer payment in full with order, however, we will accept your credit card with the understanding that we will process the charge when we order the merchandise from the factory. This means that you may be billed before you receive your drop-shipped merchandise. Shipment is FOB Redwood City, California via UPS, COD for freight charges only. Freight charges will be collected upon delivery by the carrier. Please allow sufficient time for delivery on this special order item.**

GLEN MARTIN (GME)

TOWERS

M-1330A 30' alum tower package w/Hazer .T	1609.99
M-1340A 40' alum tower package w/Hazer .T	1829.99
M-1350A 50' alum tower package w/Hazer .T	2069.99
M-1840A 40' alum tower package w/Hazer .T	2149.99
M-1850A 50' alum tower package w/Hazer T	2409.99
M-1860A 60' alum twr pack w/Voyager Hazer T	3356.99
M-1870A 70' alum twr pack w/Voyager Hazer T	3659.99
ML-1800 Messenger line kit for GME towers	72.99
KB-1000 57" side arm; M-13 series	81.99
KB-1300 57" side arm; M-18 series	83.99
M-22 10' galv steel M-22 tower section	405.99
CHB-22 Footing assembly for M-22	261.99
B-22 Leveling base for M-22	379.99

ROOF-TOP TOWERS

RT-424 4.5' roof-top tower, anodized aluminum	$163.99
RT-832 8' roof-top tower, anodized aluminum	242.99
RT-936 9' roof-top tower, anodized aluminum	396.99
RT-1832 17.5' roof-top tower, anodized aluminum	531.99
MC-10 Mast clamp; aluminum, 2 required	24.99
TB-25 Premium thrust bearing	79.99
LB-3755 Lag bolts, set of 8 3/8 x 5"	9.99
EL-3744 Concrete L-bolts, set of 8	14.99
RA-6024 24" side arm for roof towers	41.99
RA-6048 48" side arm for roof towers	53.99

Glen Martin - continued

HAZERS FOR ROHN TOWERS

	AES Price
H-2 Heavy duty aluminum Hazer system	$361.99
H-3 Standard duty aluminum Hazer system	274.99
H-4 Heavy duty galv steel Hazer system	349.99
BW-8001 Brake winch for H-2/3/4	77.99
HR-2040 Roller bearing set for Hazers	64.99
HR-6010 T²X plates for H-2/3/4/5	26.99
HS-1301 Side arm for Hazers	64.99
ML-2500 Messenger line kit for Rohn towers	76.99
VH8-60 Voyager Hazer for 60' Rohn 45G	1410.99
VH8-70 Voyager Hazer for 70' Rohn 45G	1545.99
VH9-50 Voyager Hazer for 50' Rohn 55G	1331.99
VH9-60 Voyager Hazer for 60' Rohn 55G	1455.99
VH9-70 Voyager Hazer for 70' Rohn 55G	1567.99

LIGHTNING PROTECTION

LR-8400 Premium lightning rod kit	$ 89.99
GR-4400 Ground rod wire clamp	6.99
GR-5080 8' x 5/8" ground rod	20.99
TL-0470 Terminal lug	2.99
LR-8418 Lightning rod point, 18" long	28.99
LR-8452 Clamp for holding rod to 2" mast	26.99
LR-8451 Clamp for holding rod to 1 5/16" mast	24.99
CW-2540 25' #4 bare copper ground wire	19.99
CW-5040 50' #4 bare copper ground wire	39.99
CW-7540 75' #4 bare copper ground wire	58.99
CW-1040 100' #4 bare copper ground wire	66.99
CW-1240 125' #4 bare copper ground wire	97.99
CW-1540 150' #4 bare copper ground wire	117.99

GUYING

HP-3000 Kevlar guy cable, 3000# break strength per ft	$ .99
HP-4500 Kevlar guy cable, 4500# break strength per ft	1.49
HP-7500 Kevlar guy cable, 7500# break strength per ft	1.99
WR-125 1/8" galv 7 x 7 guy cable .....per ft.	.49
WRS-156 5/32" stainless 7 x 19 guy cable per ft.	.79
WRS-187 3/16" stainless 7 x 19 guy cable per ft.	.89
WRS-250 1/4" stainless 7 x 19 guy cable per ft.	.99
WR-1862 3/8" U-bolt clip (also for Kevlar 3000/4500)	1.69
WR-2565 1/4" U-bolt clip (also for Kevlar 7500)	1.69
WR-3164 5/16" U-bolt clip	1.99
PT-2500 1/4" heavy duty thimble (for all Kevlar)	2.69
PT-3100 5/16" heavy duty thimble	2.99
PT-3700 3/8" heavy duty thimble	3.39
H-165 1/4" end cap (for Kevlar 3000/4500)	.79
H-164 5/16" end cap (for Kevlar 7500)	.89
H-142 3/8" end cap	.99
RG-4010 1/2" link connecting earthscrew to turnbuckle	7.99
ES-40 4" dia x 30" earth screw	21.99
EG-40 4" dia x 30" galvanized earth screw	32.99
ES-60 6" dia x 48" earth screw	38.99
EG-60 6" dia x 48" galvanized earth screw	54.99
ES-80 8" dia x 66" earth screw	67.99
TB-3806 3/8" x 6" galvanized turnbuckle	17.99
TB-5009 1/2" x 9" galvanized turnbuckle	23.99
TB-6212 5/8" x 12" galvanized turnbuckle	40.99

MASTS

M-1049 9' x 2" OD heavy duty galv steel mast	$ 76.99
M-1040* 10' x 2" OD heavy duty galv steel mast T	118.99
MA-1040* 10' x 1.92" OD medium duty alum mast T	122.99
*Truck, freight collect on M-1040 & MA-1040	
MA-1049 9' x 1.92" OD medium duty alum mast	90.99
MA-2069 9' x 2.375" OD heavy duty alum mast	121.99
MA-1050 5' x 1.92" OD medium duty alum mast	62.99
MA-5050 5' x 1.31" OD light duty alum mast	41.99
MP-1409 9' x 2" OD .250 wall xtra HD fg mast	120.99
MP-1809 9' x 2" OD .125 wall med dty fg mast	70.99

WINCHES

B-800 800 lb capacity w/4.5:1 gear ratio	$ 71.99
W-1100 1100 lb capacity w/3.9:1 gear ratio	39.99
W-1300 1300 lb capacity w/17:1 gear ratio	57.99
B-2000 2000 lb capacity w/17:1 gear ratio	125.99

TOWER CLIMBING EQUIPMENT

FP-5600 2 d-ring full body climbing harness (S-M)	$ 81.99
FP-5601 2 d-ring full body climbing harness (L-XL)	81.99

Glen Martin - continued

		AES Price
FP-5602	4 d-ring full body climbing harness (S-M)	99.99
FP-5603	4 d-ring full body climbing harness (L-XL)	99.99
FP-2902	1"x2' web lanyard, ¾" throat, snaphooks	44.99
FP-2903	1"x3' web lanyard, ¾" throat, snaphooks	45.99
FP-2904	1"x4' web lanyard, ¾" throat, snaphooks	45.99
FP-2905	1"x5' web lanyard, ¾" throat, snaphooks	46.99
FP-2906	1"x6' web lanyard, ¾" throat, snaphooks	47.99
FP-2923	1"x3' web lanyard, ¾"&1⅝" throat openings	90.99
FP-2924	1"x4' web lanyard, ¾"&1⅝" throat openings	91.99
FP-2925	1"x5' web lanyard, ¾"&1⅝" throat openings	92.99
FP-2926	1"x6' web lanyard, ¾"&1⅝" throat openings	93.99

All $25+ GLEN MARTIN orders are shipped PREPAID (except M-1040 & MA-1040) at Glen Martin's expense direct to you from the factory (48 states). There is a $75 residential address delivery charge on M-13 & M-18 series towers. We prefer payment in full with order, however, we will accept your credit card with the understanding that we will process the charge when we order the merchandise from the factory. This means that you may be billed before you receive your order. Please allow sufficient delivery time. Most truck lines will not unload towers, so please be sure to have enough manpower and/or equipment on hand.

L.L. GRACE (GRA)

KCT	Kansas City Tracker satellite package .D	$229.99
KCT/T	Kansas City Tracker package/KC Tuner	329.99

GROTHE (GRO)

VS-2	Emergency vehicle siren	$ 89.99
VS-2LS/A	Window mt siren/amber halogen	299.99
VS-2LS/B	Window mt siren/blue halogen	299.99
VS-2LS/R	Window mt siren/red halogen	299.99
VS-3	Volunteer vehicle PA/horn w/spkr	129.99
VS-4	P/A emergency vehicle siren w/spkr	139.99

GRUNDIG (GRU)

eTraveller VII	Mini AM/FM/SW Rcvr	$129.99
G-2000A	Porsche design AM/FM/SW receiver	99.99
MiniWorld 100PE	Mini AM/FM/SW receiver	29.99
Satellit 800	AM/FM/SW/LW/aircraft receiver	499.99
Traveller II PE	Portable AM/FM/SW receiver	49.99
Yacht Boy 300PE	Port AM/FM/SW/LW Rcvr	79.99
Yacht Boy 400PE	Port AM/FM/SW/LW Rcvr/ps	149.99

HAL (HAL)

DSP-4100	HF DSP modem .....special order	1099.99
DXP-38	External DSP HF radio modem	395.99
RTTY-1	RTTY tuning indicator	99.99
ST-8000	HF modem .....special order	3269.99

HARGER (HRG)

GBIS18114AE	⅛" copper entrance ground bar kit	$ 27.99
GBIS18148AE	⅛" copper station ground bar kit	64.99
GEL3AE	Package of 5 HD grounding lugs	15.99
GP1868.78AE	⅛" copper single pt gnd panel kit	54.99
GBX976AE	NEMA-4x weatherproof enclosure	89.99

HEIL (HEI)

BM-5-4	Boom mic/single headset (HC-4)	$ 69.99
BM-5-5	Boom mic/single headset (HC-5)	69.99
BM-5-IC	Boom mic/single headset/adapter; Icom	86.99
BM-10-4	Boom mic/headset (HC-4)	89.99
BM-10-5	Boom mic/headset (HC-5)	89.99
BM-10-IC	Boom mic/headset/adapter; Icom	106.99
HS-706	Boom mic/single headset; IC-706 series	59.99
PRO-SET-4	Deluxe boom mic/headset (HC-4)	130.99
PRO-SET-5	Deluxe boom mic/headset (HC-5)	130.99
PRO-SET-IC	Dlx boom mic/headset/adapter; Icom	147.99
PRO-5-4	Boom mic/single headset (HC-4)	120.99
PRO-5-5	Boom mic/single headset (HC-5)	120.99
PRO-5-IC	Boom mic/single headset/adapter; Icom	137.99
AD-1-I	Pro-Set 8-pin adapter cord for Icom	17.99
AD-1-K	Pro-Set 8-pin adapt cord; Kenwood	17.99
AD-1-T	Pro-Set 4-pin adapt cord; Ten-Tec	17.99
AD-1-Y	Pro-Set 8-pin adapter cord; Yaesu	17.99
AD-1-I-M	Pro-Set modular adapt cord; Ico	17.99
AD-1-K-M	Pro-Set modular adapt cord; Ken	17.99
AD-1-Y-M	Pro-Set modular adapt cord; Yae	17.99

Heil - continued

		AES Price
FS-1	Foot switch	30.99
HS-1	Hand switch	25.99
HC-4	DX'ers 'dream machine' mic element	30.99
HC-5	Key microphone element	30.99
AD-100	Mic/boomset adapt; FT-100/AD-1Y/CC-1Y	25.99
ADM-Y817	Mic/boomset adapt; FT817/AD1Y/CC1Y	25.99
HMP	In-line microphone preamp; Icom .....D	55.99
HMP-M	In-line mic pre/mod plug; 706/MkII .D	39.99
GM-4	Goldline dual element studio mic w/HC-4	140.99
GM-5	Goldline dual element studio mic w/HC-5	140.99
GM-V	Goldline vintage studio mic/matching xfmr	155.99
HM-10-4	Microphone with HC-4 element	65.99
HM-10-5	Microphone with HC-5 element	65.99
HM-10-Dual	Mic w/HC-4 & HC-5 elements	115.99
HM-I	Studio condensor microphone; Icom	95.99
ADM-706	Adapter; HM-I - Icom 706/modular plug	25.99
CC-1-C	3/16" plug cable for Collins/Drake	33.99
CC-1-D	4-pin cable for Drake	30.99
CC-1-I	8-pin cable for Icom	30.99
CC-1-I-M	Modular cable for Icom	30.99
CC-1-K	8-pin cable for Kenwood	30.99
CC-1-K-M	Modular cable for Kenwood	30.99
CC-1-T	Cable for Ten-Tec	30.99
CC-1-Y	8-pin cable for Yaesu	30.99
CC-1-Y-M	Modular cable for Yaesu	30.99
LX-1	Balanced 41" Luxo boom	95.99
MA-1	Adjustable microphone boom	45.99
SB-1	Small adjustable mic boom w/C clamp	33.99
TB-1	Table base microphone stand	25.99
HMM-IC	Condensor hand mic/8-pin plug; Icom	58.99
HMM-K	Dual el hand mic/HC-4/8-pin plug; Ken	78.99
HMM-Y	Dual el hand mic/HC-4/8-pin plug; Yae	78.99
Boom Clip	for BM-series	5.99
Ear Pads	for BM-series.....pair	5.99
Ear Pads	for PRO-series.....pair	8.99
Ham Radio Handbook		12.95
HD-AT	6db headph attenuator, ⅛"m-¼"f adapt	5.99
SM-1	Shock mount for any microphone boom	50.99
XT-1	Audio matching xfmr; lo-Z mic/tube Xcvr	15.99

HUSTLER (HUS)

RM-80	80m CW 400w PEP resonator	$ 26.99
RM-75	75m phone 400w PEP resonator	26.99
RM-40	40m 400w PEP resonator	24.99
RM-30	30m 400w PEP resonator	24.99
RM-20	20m 400w PEP resonator	21.99
RM-17	17m 400w PEP resonator	21.99
RM-15	15m 400w PEP resonator	15.99
RM-12	12m 400w PEP resonator	15.99
RM-11	CB 400w PEP resonator	15.99
RM-10	10m 400w PEP resonator	15.99
RM-80S	80m CW 2kw PEP resonator	49.99
RM-75S	75m phone 2kw PEP resonator	49.99
RM-40S	40m 2kw PEP resonator	35.99
RM-20S	20m 2kw PEP resonator	28.99
RM-15S	15m 2kw PEP resonator	24.99
RM-11S	CB 2kw PEP resonator	23.99
RM-10S	10m 2kw PEP resonator	23.99
MO-1	54" mast for fender or deck mount	31.99
MO-2	54" mast for bumper mount	31.99
MO-3	54" no break-over mast	23.99
MO-4	22" mast for special applications	19.99
VP-1	Tri-band adapter	5.99
RSS-2	Resonator spring	9.99
QD-2	Stainless quick disconnect	19.99
L-14-144	12' RG-58, PL-259 to lugs	9.99
L-14-240	20' RG-58, PL-259 to lugs	12.99

STAINLESS 2" MOBILE BALL MOUNTS

SSM-1	Ball & spring, cadmium hardware	$ 46.99
SSM-2	Ball, cadmium hardware	26.99
SSM-3	Stainless steel spring	24.99

1-1/2" MOBILE BALL MOUNTS

C-32	Chrome plated ball	$ 11.99

Hustler - continued

		AES Price
C-30	Chrome plated spring	11.99
C-29	Stainless steel spring	17.99
BM-1	Single strap bumper mt w/C-32	21.99

3/8-24 THREAD MOBILE MOUNTS

HLM	Trunk lip mount w/swivel	$ 22.99
HOT	Hustloff trunk lip mt w/swivel	23.99
MBM	Super magnet mount w/16' coax	19.99
RVM	Recreational vehicle mount	20.99
TLM	Trunk lip mount	21.99

HF ANTENNAS

4-BTV	40/20/15/10m 21' trap vertical	$119.99
5-BTV	80/40/20/15/10m 25' trap vertical	149.99
30-MTK	30m trap kit for 4-BTV/5-BTV	41.99
6-BTV	80/40/30/20/15/10m 24' trap vert	179.99

VHF/UHF BASE STATION ANTENNAS

G3-144	2m 3db 7.5' vertical antenna	$ 63.99
G6-144B	2m 6db 10' vertical antenna	114.99
G6-270R	2m/440 6db 7.6' base station ant	159.99
G7-144	2m 7db 15' vertical antenna	159.99
G7-220	220 MHz 7db 10' vertical antenna	149.99
G6-440	440 MHz 6db 7' vertical antenna	139.99

VHF/UHF MOBILE ANTENNAS

BBG-144	2m 3.4db NMO coil/whip only	$ 39.99
BBGT-144	2m 3.4db NMO trunk lip mt ant	49.99
BBG-440-5	440 5db NMO coil/whip only	39.99
BBGT-440-5	440 5db NMO trunk lip mt ant	49.99
BBL-144A	2m ¾" hole mt antenna, 3.4db	39.99
BBLT-144A	2m trunk lip mt ant, 3.4db	47.99
CG-144	2m ⅜-24 ant, 7' high, 5.2db	31.99
CGT-144	2m trunk mt ant, 7' high, 5.2db	51.99
CG-220	220 MHz ⅜-24 ant, 5.2db	29.99
CGT-220	220 MHz 5.2db tnk mt ant	49.99
FX-220B	220 3.4db black mag mt ant .....D	24.99
LMB-144	2m 3.4db black NMO coil/whip only	22.99
LMB-270	2m/440 2.4/4db black NMO coil/whip only	32.99
LMB-440-5	440 5db black NMO coil/whip only	19.99
LMC-144	2m 3.4db NMO coil/whip only	19.99
LMC-270	2m/440 2.4/4db NMO coil/whip only	31.99
LMC-440-5	440 5db NMO coil/whip only	19.99
LMG-144	2m 3.4db NMO pushpin coil/whip only	25.99
LMG-440-5	440 5db NMO pushpin coil/whip only	19.99
MKR-2	Radial kit for SF-2/CG-144	20.99
MX-2	2m 3db black & chrome NMO mag mt ant	34.99
MX-2B	2m 3db all black NMO mag mt ant	39.99
MX-220	220 3db blk & chrome NMO mag mt ant	34.99
MX-220B	220 3db all black NMO mag mt ant D	29.99
MX-440	440 5db blk & chrome NMO mag mt ant	36.99
MX-440B	440 5db all black NMO mag mt ant	36.99
RX-2	2m 3.4db magnetic mount ant	24.99
RX-220	220 3.4db magnetic mt antenna	24.99
RX-440	440 5db magnetic mt antenna	24.99
SF-2	2m ⅜-24 ant, 4' high, 3.4 db	14.99
SF-220	220 MHz ⅜-24 antenna, 3 db	14.99
THF	140-500 MHz ¼ wave trunk mount ant	23.99
UGM	140-500 MHz ¼ wave BNC mag mt ant	21.99
UHT-1	140-500 MHz ¼ wave roof mt ant	14.99

CB & MONITOR ANTENNAS

1C-11	White trunk mount CB antenna	$ 13.99
1C-11B	Black trunk mt CB antenna	13.99
1C-100	White magnetic mount CB antenna	21.99
1C-100B	Black magnetic mt CB antenna	21.99
DTG	25" fg double-talk gutter mt CB ant	39.99
FG-27S	48" CB whip	11.99
HQ-27	Power Packer ⅜-24 CB whip	17.99
HQ-27M	Power Packer trunk mt CB antenna	36.99
HQD	Dual fg mirror mount CB antenna	49.99
HQT	Single fg mirror mount CB antenna	27.99
HTM-1	Twin Husky fg ant w/mirror mts .....D	39.99
RQM	Magnetic mount CB antenna	19.99
RTG-27L	25" CB antenna w/rain gutter mt	26.99
RTM	25" magnetic mount CB antenna	16.99
RTS-27L	25" CB antenna w/roof mount	26.99
SCB/BLK	46" black fiberglass CB whip	34.99

Hustler - continued

	AES Price
SCB/BLU 46" blue fiberglass CB whip	34.99
SCB/RED 46" red fiberglass CB whip	34.99
SCB/WHT 46" white fiberglass CB whip	34.99
SCB-S/BLK 35" black fiberglass CB whip	34.99
SCB-S/BLU 35" blue fiberglass CB whip	34.99
SCB-S/RED 35" red fiberglass CB whip	34.99
SCB-S/WHT 35" white fiberglass CB whip	34.99
DCL Discone monitor ant w/50' coax & plugs	34.99
DCX Discone monitor ant; 40-700 MHz	23.99
MOR Roof/deck mt tri-band monitor ant	18.99
MOT Trunk lip mt tri-band monitor antenna	19.99

HY-GAIN (HYG)

190S RRK-88 Roof radial kit Δ	$ 29.99
191S 160MK-88 160m kit for 188S Δ	69.99
2400-155 62400155 Boom mic/headset Δ	39.99

MULTI-BAND VERTICAL ANTENNAS

AV-620 20/17/15/12/10/6m vertical ant	$269.99
AV-640 40/30/20/17/15/12/10/6m vertical	359.99

ANTENNA ROTORS

AR-40 3 sq ft antenna rotor/5-wire	$269.99
CD-45-II 8.5 sq ft antenna rotor/8-wire	369.99
HAM-IV 15 sq ft antenna rotor/8-wire	529.99
HAM-V Digital 15 sq ft antenna rotor/8-wire	899.99
HDR-300A Hvy duty dig 25 sq ft rotor/8-wire	1229.99
T-2X Tailtwister 20 sq ft antenna rotor/8-wire	619.99
T-2XD Tailtwister dig 20 sq ft ant rotor/8-wire	979.99

OPTIONAL ACCESSORIES FOR ROTORS

DCU-1 Digital rotor control; HAM-IV/T-2X	$619.99
MSHD Lwr mast support; HAM-IV/V/T-2X/XD	81.99
MSLD Lower mast support; CD-45II/AR-40	29.99
TSP-1 Tower spacer plate	29.99

See BELDEN for rotor cable

ICOM (ICO)

IC-775DSP Xcvr/ps/keyer/tuner/IF-DSP †	2999.99
CR-282 High stability crystal unit	149.99
CT-17 CI-V level converter	139.99
FL-53A 250 Hz 455 KHz IF CW filter	189.99
FL-101 250 Hz 9 MHz IF CW filter	119.99
FL-102 6 KHz 9 MHz IF AM filter	94.99
FL-222 1.9 KHz 455 KHz IF SSB filter	199.99
FL-223 1.9 KHz 9 MHz IF SSB filter	99.99
FL-257 3.3 KHz 455 KHz IF SSB filter	189.99
HM-36 Scanning hand mic	74.99
MB-19 Rack mounting handles	74.99
SM-6 Desk microphone	119.99
SM-8 2-connector desk mic/up/down scan	169.99
SM-20 Deluxe desk microphone	219.99
SP-20 Speaker w/audio filter	249.99
SP-21 External speaker	119.99
IC-756PRO Xcvr/Rcvr/6m/IF-DSP/tuner/keyer †	2399.99
FREE clock from Icom! 1st 1,000 units - until gone! USA only	
PS-125 25A switching power supply	299.99
AH-4 80-6m 120w auto wire ant tuner †	269.99
AH-2B Whip w/mt; 40-6m use tuner	299.99
AH-2B extra **whip only**	119.99
CT-17 CI-V level converter	139.99
HM-36 Scanning hand mic	74.99
OPC-025D Extra DC cable	29.99
SM-6 Desk microphone	119.99
SM-8 2-connector desk mic/up/down scan	169.99
SM-20 Deluxe desk microphone	219.99
SP-20 Speaker w/audio filter	249.99
SP-21 External speaker	119.99
UT-102 Voice synthesizer	74.99
IC-746 Xcvr/Rcv/6m/2m/IF-DSP/tuner/mic †	1299.99
PS-85 20A switching power supply Δ	269.99
PS-125 25A switching power supply	299.99
AH-4 80-6m 120w auto wire ant tuner †	269.99
AH-2B Whip w/mt; 40-6m use tuner	299.99
AH-2B extra **whip only**	119.99
CR-282 High stability crystal unit	149.99

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	AES Price
CT-17 CI-V level converter	139.99
FL-52A 500 Hz 455 KHz IF CW filter	189.99
FL-53A 250 Hz 455 KHz IF CW filter	189.99
FL-96 2.8 KHz 455 KHz IF SSB filter	169.99
FL-100 500 Hz 9 MHz IF CW filter	119.99
FL-101 250 Hz 9 MHz IF CW filter	119.99
FL-103 2.8 KHz 9 MHz IF SSB filter	109.99
FL-222 1.9 KHz 455 KHz IF SSB filter	199.99
FL-223 1.9 KHz 9 MHz IF SSB filter	99.99
FL-232 350 Hz 9 MHz IF CW/RTTY filter	99.99
FL-257 3.3 KHz 455 KHz IF SSB filter	189.99
OPC-025D Extra DC cable	29.99
RS-746 Win remote control software	79.99
SM-6 Desk microphone	119.99
SM-8 2-connector desk mic/up/down scan	169.99
SM-20 Deluxe desk microphone	219.99
SP-21 External speaker	119.99
UT-102 Voice synthesizer	74.99
UT-30 Tone encoder; IC-707 Δ	49.99
IC-718 HF Xcvr/SW Rcvr/mic †	599.99
PS-85 20A switching power supply Δ	269.99
PS-125 25A switching power supply	299.99
AH-4 80-6m 120w auto wire ant tuner †	269.99
AH-2B Whip w/mt; 40-6m use tuner	299.99
AH-2B extra **whip only**	119.99
AT-180 Auto coax antenna tuner; HF+6m †	399.99
OPC-598 23' extension cable for AT-180	69.99
CR-338 High stability crystal unit	81.99
CT-17 CI-V level converter	139.99
FL-52A 500 Hz 455 KHz IF CW filter	189.99
FL-53A 250 Hz 455 KHz IF CW filter	189.99
FL-96 2.8 KHz 455 KHz IF SSB filter	169.99
FL-222 1.9 KHz 455 KHz IF SSB filter	199.99
FL-257 3.3 KHz 455 KHz IF SSB filter	189.99
Suggest dealer installation of filters in IC-718	
MB-5 Mobile mount	59.99
MB-23 Side mount carrying handle	15.99
OPC-025D Extra DC cable	29.99
SM-6 Desk microphone	119.99
SM-8 2-connector desk mic/up/down scan	169.99
SM-20 Deluxe desk microphone	219.99
SP-7 Small external speaker	94.99
SP-20 Speaker w/audio filter	249.99
SP-21 External speaker	119.99
UT-102 Voice synthesizer	74.99
UT-106 Plug-in DSP	149.99
IC-706 Mk II-G Mini Xcvr/Rcvr/6m/2m/440/DSP †	929.99
RMK-706 FREE from Icom w/IC-706 Mk II-G thru 12/31/01	
706IIG/AH4 IC-706 Mk II-G/AH-4 combo †	1199.98
RMK-706 FREE from Icom w/706IIG/AH4 thru 12/31/01	
706IIG/AT180 IC-706 Mk II-G/AT-180 combo †	1329.98
RMK-706 FREE from Icom w/706IIG/AT180 thru 12/31/01	
(BET) **706 Tune Contr**ol for IC-706-series	32.99
PS-85 20A switching power supply Δ	269.99
PS-125 25A switching power supply	299.99
AH-4 80-6m 120w auto wire ant tuner †	269.99
AH-2B Whip w/mt; 40-6m use tuner	299.99
AH-2B extra **whip only**	119.99
AT-180 Auto coax antenna tuner; HF+6m †	399.99
OPC-598 23' extension cable for AT-180	69.99
CR-282 High stability crystal unit; Mk II G	149.99
Suggest dealer install; CR-282, IC-706 Mk II-G	
CT-17 CI-V level converter	139.99
FL-100 500 Hz 9 MHz IF CW filter	119.99
FL-101 250 Hz 9 MHz IF CW filter	119.99
FL-103 2.8 KHz 9 MHz IF SSB filter	109.99
FL-223 1.9 KHz 9 MHz IF SSB filter	99.99
FL-232 350 Hz 9 MHz IF CW/RTTY filter	99.99
HM-118TN TTP microphone	59.99
MB-62 Mounting bracket for main unit	25.99
MB-63 Mounting bracket for control panel	18.99
MB-65 Mounting base platform	35.99
MB-72 Carrying handle; Mk II-G only	14.99
OPC-025D Extra DC cable	29.99

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	AES Price
OPC-581 11.5' separation cable	60.99
OPC-587 16' separation cable	79.99
OPC-599 7+8-pin to 13-pin adapter	60.99
OPC-742 13-pin cable	59.99
RMK-706 Package; MB-62/MB-63/OPC-581	70.99
SM-6 Desk microphone	119.99
SM-8 2-connector desk mic/up/down scan	169.99
SM-20 Deluxe desk microphone	219.99
OPC-589 8-pin to jack adapt; SM-6/8/20	35.99
SP-7 Small external speaker	94.99
UT-102 Voice synthesizer	74.99
AH-710 1.9-30 MHz 80' folded dipole	299.99
PW-1 160-15+6m linear amp/ps/tuner †	4699.99
UT-86 Tone squelch; IC-706 Mk II only Δ	69.99

RECEIVERS

R-1* .1MHz-1.3GHz AM/FM handheld Rcvr D	$149.99
HP-4 Lightweight headphones	29.99
R-2-06 .5M-1.3G AM/FM hand/batts/cgr/cell blkd †	154.99
CSW-HHRX soft/cbl FREE from Icom w/R-2-06 thru 12/31/01	
R-2-07* .5MHz-1.3GHz AM/FM hand Rcvr †	179.99
CSW-HHRX soft/cbl FREE from Icom w/R-2-07 thru 12/31/01	
AD-92SMA SMA- BNC adapter	16.99
BC-127A Extra nicad charger	20.99
CS-R2 DOS programming software; R-2	13.99
OPC-474 Cloning cable (R-2 to R-2)	18.99
OPC-478 PC - radio programming cable	45.99
CSW-HHRX Win prog soft/cable; R-2/R-10	50.99
HP-4 Lightweight headphones	29.99
LC-146 Carrying case	38.99
SP-13 Earphone	4.99
R-3-26 .5M-2.45G AM/FM/TV hand Rcvr/cell blkd	349.99
R-3-27* .5MHz-2.45GHz AM/FM/TV hand Rcvr	489.99
BC-135 Desktop charger w/adapter cup	80.99
BP-206 Extra 3.7v 1650ma lith ion batt	63.99
CP-18A Cig lighter adapter	30.99
CS-R3 Win programming software	24.99
OPC-474 Cloning cable (R-3 to R-3)	18.99
OPC-478 PC - radio programming cable	45.99
HP-4 Lightweight headphones	29.99
LC-151 Carrying case	24.99
SP-13 Earphone	4.99
R-10-05 .5M-1.3G AM/FM/SSB hand/cell blkd †	299.99
CSW-HHRX soft/cbl FREE from Icom w/R-10-05 thru 12/31/01	
R-10-15* .5MHz-1.3GHz AM/FM/SB HH Rcvr †	299.99
CSW-HHRX soft/cbl FREE from Icom w/R-10-15 thru 12/31/01	
CP-12L Right angle cig cable w/filter	36.99
CS-R10 DOS programming software; R-10	13.99
OPC-474 Cloning cable (R-10 to R-10)	18.99
OPC-478 PC - radio programming cable	45.99
CSW-HHRX Win prog soft/cable; R-10/R-2	50.99
CT-17 CI-V level converter	149.99
HP-4 Lightweight headphones	29.99
LC-140 Carrying case for R-10	38.99
OPC-254L Right angle mini DC pwr cable	14.99
SP-13 Earphone	4.99
CK-70 (EX-299) 12v DC option; R-7000 Δ	29.99
PCR-100-12 .01-1300 am/fm PC Rcv/cell blkd †	249.99
PCR-100-08* .01-1300 PC controlled Rcvr	249.99
AH-7000 25-1000 MHz discone ant w/coax	179.99
PCR-1000-02 .5-1300 am/fm/sb PC Rcv/cell blkd †	349.99
PCR-1000-07* .5-1300 PC control Rcvr †	349.99
AH-7000 25-1000 MHz discone ant w/coax	179.99
UT-106 Plug-in DSP unit	149.99
R-75 .03-60 MHz shortwave receiver †	569.99
CR-282 High stability crystal unit	149.99
CT-17 CI-V level converter	139.99
FL-52A 500 Hz 455 KHz IF CW filter	189.99
FL-53A 250 Hz 455 KHz IF CW filter	189.99
FL-96 2.8 KHz 455 KHz IF SSB filter	169.99
FL-100 500 Hz 9 MHz IF CW filter	119.99
FL-101 250 Hz 9 MHz IF CW filter	119.99
FL-103 2.8 KHz 9 MHz IF SSB filter	109.99
FL-222 1.9 KHz 455 KHz IF SSB filter	199.99

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FL-223 1.9 KHz 9 MHz IF SSB filter	99.99
FL-232 350 Hz 9 MHz IF CW/RTTY filter	99.99
FL-257 3.3 KHz 455 KHz IF SSB filter	189.99
MB-5 Mobile mount	59.99
MB-23 Side mount carrying handle	15.99
OPC-869 DC cable	13.99
RS-R75 PC control software w/RS-232 cable	80.99
SP-21 External speaker	119.99
UT-102 Voice synthesizer	74.99
UT-106 Plug-in DSP unit	149.99
R-8500-02 .1M - 2G receiver/cell blocked †	1439.99
R-8500-04* .1MHz - 2GHz receiver †	1499.99
AH-7000 25-1000 MHz discone ant w/coax	179.99
CR-293 High stability xtal unit	329.99
FL-52A 500 Hz CW filter	189.99
MB-12 Mobile mount	59.99
MB-23 Side mount carrying handle	15.99
RS-R8500 PC control soft w/RS-232 cable	80.99
SP-7 Small external speaker	94.99
SP-21 External speaker	119.99
TV-R7100 TV/FM adapter; R-8500/7100 .D	369.99
UT-102 Voice synthesizer	74.99
R-9000L* .1-1.999.8MHz Rcvr/LCD disp spec order	8299.99
AH-7000 25-1000 MHz discone ant w/coax	179.99
CT-17 CI-V level converter	139.99
SP-20 Speaker w/audio filter	249.99

*United States & state government agencies or a political subdivision thereof and communications utility companies and their legal agents **ONLY** may purchase unblocked models of R-1/R-2/R-3/R-10/PCR-100/PCR-1000/R-8500/R-9000L for official government or communications utility company use only. Mail or FAX purchase order to AES. Exports: inquire.

2m TRANSCEIVERS

UT-101 DTMF unit for IC-2000H Δ	$ 28.99
IC-2100H 50w 2m FM Xcvr/TTP mic †	169.99
BC-96 Microphone holder	43.99
CP-13L Cig cable w/filter for BC-96	40.99
CS-2100 DOS cloning software	13.99
OPC-478 PC to radio cloning cable	45.99
CSW-2100 Win prog soft/cable; IC-2100H	50.99
HM-90A Wireless microphone Δ	89.99
EX-1759 Infrared receiver	99.99
EX-1513 Infrared Rcvr range extender D	28.99
HM-98S Extra TTP mic for IC-2100H	90.99
HS-62 Flexible mobile mic D	29.99
MB-17A Quick release bracket	49.99
MB-28H Extra mobile bracket	26.99
OPC-346 Extra 9.8' DC cable	46.99
OPC-347 23' DC cable	46.99
OPC-440 Mic extension cable	85.99
OPC-441 Speaker extension cable	33.99
OPC-474 Radio to radio cloning cable	18.99
OPC-589 8-pin to jack adapter	35.99
OPC-647 8.2' mic extension cable	54.99
IC-207H 50w 2m/35w 440 FM Xcvr/TTP †	299.99
OPC-600 cable FREE from Icom w/IC-207H thru 12/31/01	
BC-96 Microphone holder	43.99
CP-13L Cig cable w/filter for BC-96	40.99
CS-207 DOS prog software; IC-207H	13.99
CSW-207/2710 Win cloning soft; 207/2710	30.99
OPC-646 Prog cbl; CS-207/CSW-207/2710	89.99
HM-90A Wireless microphone Δ	89.99
EX-1759 Infrared receiver	99.99
EX-1513 Infrared Rcvr range extender D	28.99
MB-17A Quick release bracket	49.99
MB-28H Extra mobile bracket	26.99
MB-58 Remote controller bracket	39.99
OPC-346 Extra 9.8' DC cable	46.99
OPC-347 23' DC cable	46.99
OPC-440 Mic extension cable	85.99
OPC-441 Speaker extension cable	33.99
OPC-589 8-pin to jack adapter	35.99

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	AES Price
OPC-600 11.5' extension cable	45.99
OPC-601 23' extension cable	59.99
OPC-647 8.2' mic extension cable	54.99
RMK-3 Package; MB-58/OPC-600/OPC-647	84.99
MB-26 Mobile mount; IC-281H/2710H Δ	19.99
UT-89 Tone scan/decode unit; IC-2350H Δ	89.99
UT-104 Tone squelch unit; IC-2710H Δ	39.99
IC-2800H 50w 2m/35w 440 FM Xcvr/9600 †	499.99
CS-2800 Windows cloning software	13.99
OPC-478 PC to radio cloning cable	45.99
HM-90A Wireless microphone Δ	89.99
EX-1759 Infrared receiver	99.99
EX-1513 Infrared Rcvr range extender D	28.99
MB-17A Quick release bracket	49.99
MB-28H Extra mobile bracket	26.99
MB-65 Mounting base platform	35.99
MB-73 Controller bracket	26.99
OPC-346 Extra 9.8' DC cable	46.99
OPC-347 23' DC cable	46.99
OPC-440 Mic extension cable	85.99
OPC-589 8-pin to jack adapter	35.99
OPC-647 8.2' mic extension cable	54.99
OPC-872 Controller extension cable	27.99
SP-10 Slim-line external speaker	69.99
UT-49 DTMF decoder unit	74.99
UT-84 Tone squelch unit; IC-821H Δ	99.99
IC-910H 100w 2m/75w 430 FM/SSB Xcvr †	1299.99
PS-125 25A switching power supply	299.99
AG-25 2m mast mounted GaSFET preamp	189.99
AG-35 430 MHz mast mounted preamp	199.99
AG-1200 1.2 GHz mast mt preamp	159.99
CR-293 High stability xtal unit	329.99
CT-17 CI-V level converter	139.99
FL-132 500 Hz main Rcvr CW filter	119.99
FL-133 500 Hz sub band Rcvr CW filter	119.99
MB-5 Mobile mount	59.99
MB-23 Side mount carrying handle	15.99
SM-20 Deluxe desk microphone	219.99
SP-7 Small external speaker	94.99
UT-102 Voice synthesizer	74.99
UT-106 Plug-in DSP unit	149.99
UX-910 10w 1.2GHz module	499.99
OPC-333 23' sep kit; Delta100H D	1.99

Accessories for IC-2AT

BC-25U Extra wall cgr; BP-3 only Δ	$ 29.99
BM-112U/BC-16U Wall cgr; 5A/7/8 only Δ	26.99
BP-3 250ma 8.4v battery Δ	49.99
BP-4 Alkaline battery case Δ	35.99
BP-5 425ma 10.8v high power battery Δ	89.99
BP-8 800ma 8.4v long life battery Δ	99.99
CP-1 Cig cgr; BP-3/7/8//DC cord Δ	26.99
CP-11 Cig cord w/noise filter Δ	39.99
DC-1 DC operation module Δ	39.99
IC-T2H Sport 6w 2m FM HT/battery holder	99.99
IC-T2H 6w 2m FM HT/8 AA nicads/cgr D	139.99
AD-81 Adapter for BC-119-11	17.99
BC-110A/BC-74 Extra wall charger	40.99
BC-119-11 Desk charger (adapter required)	89.99
BC-133 Drop-in trickle charger	39.99
BC-122A AC adapter for BC-133	16.99
BP-194 AA alkaline battery case	18.99
BP-195 9.6v 700ma nicad battery	42.99
BP-196 9.6v 1050ma nicad battery	53.99
CP-12L Rt angle cig charge cable w/filter	36.99
CP-17L Right angle cig cable for charger	24.99
CS-T2 DOS prog software for IC-T2	13.99
OPC-474 Cloning cable (T2 to T2)	18.99
OPC-478 PC to radio cloning cable; T2	45.99
CSW-HH4 Windows prog soft w/cable; T2	50.99
HM-46 Slim-line speaker/mic	45.99
HM-54 Hvy duty spkr/mic	83.99
HM-75A Remote control microphone	70.99
HM-128 Earphone+microphone	25.99

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	AES Price
HS-51 Headset w/VOX	96.99
HS-94 Ear-piece style headset; use w/VS-1	24.99
VS-1 VOX-PTT unit for HS-94	42.99
LC-145 Carrying case for IC-T2	38.99
LCF3 Swivel Leather case with swivel	50.99
MB-74 Spring loaded belt clip	12.99
OPC-254L Right angle mini DC chg cable	14.99
SP-13 Earphone	4.99
IC-V8 5.5w 2m FM HT/batt/cgr/TTP	169.99
BC-144-01 Desk charger with adapter	89.99
BP-208 Battery case	18.99
BP-209 7.2v 1100ma 5.5w battery	53.99
BP-210 7.2v 1650ma 5.5w battery	80.99
BP-222 7.2v 600ma 5.5w battery	35.99
CP-17L Right angle cig cable for charger	24.99
CS-V8 Cloning software for IC-V8	35.99
OPC-474 Cloning cable (V8 to V8)	18.99
OPC-478 PC to radio cloning cable; V8	45.99
HM-46L Slim-line spkr/mic, rt angle plug	45.99
HM-54 Hvy duty spkr/mic	83.99
HM-75A Remote control microphone	70.99
HS-51 Headset w/VOX	96.99
HS-94 Ear-piece style headset; use w/VS-1L	24.99
VS-1L Right angle VOX-PTT unit for HS-94	42.99
LCF3G Swivel Leather case with swivel	50.99
MB-74 Spring loaded belt clip	12.99
OPC-515L Right angle DC cord for charger	20.99
SP-13 Earphone	4.99
UT-108 DTMF decoder unit	35.99
IC-T22A 5w 2m FM HT/batt/cgr/TTP Δ	229.99
IC-T7H 6w 2m/440 HT/batt/cgr/TTP †	199.99
IC-W32A 5w 2m/440 FM HT/batt/cgr/TTP †	269.99
AD-51 Batt pack adapter; W32A	14.99
AD-56 Batt pack adapter; T22A/T7	18.99
BC-119-11 Desk charger (adapter required)	89.99
BP-170 Battery case	35.99
BP-172 4.8v 950ma battery	91.99
BP-173 9.6v 600ma battery	139.99
BP-180 7.2v 600ma battery	83.99
CP-12 Cig lighter cable w/filter	36.99
CP-12L Right angle cig cable w/filter	36.99
CS-T7 DOS prog software for IC-T7 Δ	1.99
CSW-32 DOS prog software for IC-W32A	13.99
OPC-474 Cloning cbl (IC-32A to IC-32A)	18.99
OPC-478 PC to radio cloning cbl;T7/W32A	45.99
CSW-HH4 Windows prog soft/cbl; W32A/T7	50.99
FA-1443B Extra 2m/440 dual band flex ant	29.99
HM-46 Slim-line speaker/mic	45.99
HM-46L Slim-line spkr/mic, rt angle plug	45.99
HM-54 Heavy duty spkr/mic	83.99
HM-75A Remote control microphone	70.99
HM-128 Earphone+microphone	25.99
HS-10 Boom mic/headset	69.99
HS-10SA VOX unit	69.99
HS-10SB PTT switchbox	69.99
HS-85 Headset w/VOX	89.99
LC-125 Vinyl case; T22A w/BP170/171/172 D	9.99
LC-126 Vinyl case; T22A w/BP173	38.99
LC-128 Vinyl case; IC-W32A	38.99
LC-136 Vinyl case; T7 w/BP170/171/172	38.99
LC-137 Vinyl case; T7 w/BP173/180	38.99
MB-30 Mobile/wall bracket	41.99
NCP-1 Nylon chest pack	39.99
OPC-254 Mini DC power cable	14.99
OPC-254L Right angle mini DC pwr cable	14.99
SP-13 Earphone	4.99
UT-94 Tone squelch unit; IC-T22A Δ	39.99
IC-Q7ABC 350mw 2m/440 HT/batts/cgr †	129.99
AD-92SMA SMA- BNC adapter	16.99
BC-127A Extra nicad charger	20.99
HM-46 Slim-line speaker/mic	45.99
HM-128 Earphone+microphone	25.99
HS-85 Headset w/VOX	89.99
SP-13 Earphone	4.99

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	AES Price
OPC-782 Plug adapt cbl; HM46/HS85/SP13	16.99
LC-146 Carrying case	38.99
IC-T81A 5w 6m/2m/440/1w 1.2 HT/batt/cgr/TTP .†	279.99
AD-87 Batt pack adapter for rapid charger	8.99
AD-88 PCB board; orig BC-119-11	29.99
AD-92SMA SMA- BNC adapter	16.99
BC-119-31 Desk charger (adapter required)	99.99
BP-197 3 AA battery case	24.99
BP-198 4.8v 700ma NiMH battery	59.99
BP-199 6v 700ma NiMH battery	70.99
BP-200 9.6v 680ma NiMH battery .....D	85.99
BP-200L 9.6v 760ma NiMH battery	95.99
CP-12 Cig lighter cable w/filter	36.99
CP-12L Right angle cig cable w/filter	36.99
CS-T81 Windows cloning software; IC-T81A	13.99
OPC-474 Cloning cable (radio to radio) .	18.99
OPC-478 PC to radio cloning cable	45.99
HM-46 Slim-line speaker/mic	45.99
HM-54 Heavy duty spkr/mic	83.99
HM-75A Remote control microphone	70.99
HM-128 Earphone+microphone	25.99
HS-51 Headset w/VOX	96.99
HS-85 Headset w/VOX	89.99
LC-148 Carrying case; IC-T81A	24.99
OPC-254 Mini DC power cable	14.99
OPC-254L Right angle mini DC pwr cable .	14.99
SP-13 Earphone	4.99
BP-131 900ma 7.2v batt/mic; W21AT .....D	39.99
LC-147 Carrying case; IC-T8A/HP .....Δ	14.99

Accessories for IC-2SAT/2SRA/24AT/W2A

AH-20 Replacement rcv ant; IC-2SRA .....Δ	$ 28.99
BP-83 7.2v 600ma battery .....Δ	79.99
BP-84 7.2v 1000ma battery .....Δ	99.99
BP-90 AA alkaline battery case .....Δ	35.99
IC-2GXAT/HP 7w 2m HT/batt/cgr/TTP	249.99
AD-25 Battery charger adapter .....Δ	49.99
AD-28 Batt pack adapter for rapid charger	18.99
BC-105A/BC-77 Extra wall charger	40.99
BC-119-11 Desk charger (adapter required)	89.99
BP-130A Battery case .....Δ	35.99
BP-157A 900ma 7.2v battery	85.99
BP-174 600ma 12v battery	98.99
CP-13 Cig cable w/filter	40.99
CP-13L Right angle cig cable w/filter	40.99
HM-46 Slim-line speaker/mic	45.99
HM-46L Slim-line spkr/mic, rt angle plug .	45.99
HM-54 Heavy duty spkr/mic	83.99
HM-128 Earphone+microphone	25.99
HS-51 Headset w/VOX	96.99
LC-116 Carrying case; BP-130A/157A/160 D	29.99
LC-117 Carrying case for BP-132A .....D	19.99
MB-30 Mobile/wall bracket	41.99
OPC-288 Mini DC power cable	19.99
SP-13 Earphone	4.99
UT-49 DTMF decoder unit	74.99
AD-44 Batt adapter; rapid cgr; T21A .....D	.99
LC-110 Vinyl case; BP-153; ICT21A .....D	.99
LC-111 Vinyl case; BP-152; IC-T21A .....D	4.99

ACCESSORIES

AG-25 2m mast mounted GaSFET preamp	$189.99
AG-35 430 MHz mast mounted preamp	199.99
AG-1200 1.2 GHz mast mt preamp	159.99
CT-16 Satellite interface unit .....D	119.99
CT-17 CI-V level converter	139.99
HM-12 Scan hand microphone	74.99
MB-23 Side mount carrying handle	15.99
PS-85 Power supply	269.99
SM-6 Electret desk microphone	119.99
SM-8 2-connector desk mic w/up/down scan	169.99
SM-20 Deluxe desk microphone	219.99
SP-5 Mobile speaker	54.99
SP-7 Small external speaker	94.99
SP-10 Slim-line external speaker	69.99

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	AES Price
SP-20 Speaker w/audio filter	249.99
SP-21 External speaker	119.99

CONSUMER ELECTRONICS

A-22 5w compact Navicom air handheld	$399.99
GP-270ML Fixed mt marine GPS w/keypad	399.99
IC-M1V Waterproof 5w VHF marine handheld	249.99
IC-M3A 5w VHF marine handheld w/AA nicads	159.99
IC-M45AW White 25w VHF marine Xcvr	179.99
IC-M402W02 White waterproof 25w VHF marine	219.99
M-710 (21) 150w HF marine SSB .spec order	1399.99
M-710-05 (22) 150w 1.6-27.5 SSB .spec order	1599.99
M-710RT-21 150w HF marine SSB spec order	1699.99
M-710RT-22 150w 1.6-27.5 SSB .....spec order	1899.99
AT-130 HF marine auto ant tuner spec order	449.99
IC-4008A Family radio service black handheld	79.99
BC-127A Charger for 2 or 4 AA nicads	20.99
BP-202 Nicad battery assembly	17.99
HM-46 Slim-line speaker/mic	45.99
HM-128 Earphone+microphone	25.99
HS-85 Headset w/VOX	89.99

IDIOM PRESS (IDI)

K-3 Logikey CW keyer	$129.99
HK-3 Hook-up kit	10.99

International Ant (IAC)

160m double **Bazooka** 248' antenna	$214.99
80m double **Bazooka** 121' antenna	150.99
40m double **Bazooka** 64' antenna	126.99
160m-S 160m half sloper 127' antenna	140.99
80m-S 80m half sloper 67' antenna	115.99
40m-S 40m half sloper 33' antenna .....Δ	79.99

ISOTRON (ISO)

160C 160m 9.5'x16"x15" 100 KHz bandwidth ant	$173.99
80 80m 32"x16"x15" 110 KHz bandwidth ant	98.99
40 40m 22"x16"x15" 250 KHz bandwidth ant	88.99
20 20m 21"x8"x4" 350 KHz bandwidth ant	78.99
15 15m 21"x1.5"x4" 450 KHz bandwidth ant	78.99
10 10m 16"x1.5"x4" 1 MHz bandwidth ant	78.99
6 6m 16.5"x2"x4" 1.25 MHz bandwidth ant	78.99
80/40 Combo* 80/40m 32"x16"x30" ant .	169.99
20/15/10 Combo 20/15/20m combo ant	198.99

*Requires coaxial "T's" & jumpers - not included

JSC (JSC)

JRR-520 5-wire rotor cable .....Δ, per ft.	$ .14
JRR-520 .....Δ, **100** ft. Roll	12.99
JRR-520 .....Δ, **500** ft. Roll	44.99
JRR-520 .....Δ, **1000** ft. Roll	79.99

K-COM (KCO)

RF-1 Modular telephone 3-30 MHz RFI filter .	$ 16.99
RF-1/Low Modular phone .5-3 MHz RFI filter	16.99
RF-1/2-line 2-line modular 3-30 MHz RFI filt	22.99
RF-1/coiled Coiled cord modular 3-30MHz filt	22.99
RF-2 Hard-wired telephone 3-30 MHz RFI filt	10.99

KC Tracker (See GRACE)

KACHINA (KAC)

505-MB Mobile mount bracket .....Δ	$ 6.99
505-SM Rubber shock mts; 505-MB .....Δ	2.99
970056 75' control head cable .....Δ	29.99
970057 25' RS-232 cable .....Δ	2.99
970058 75' RS-232 cable .....Δ	4.99

KANTRONICS (KAN)

Data Engine TNC w/no modems .....D	$ 69.99
Data Engine w/DE-1200 modem .....D	99.99
KPC-3 Plus/128K Small packet TNC/128K RAM	186.99
KPC-**9612 Plus/128K** 9600 controller/128K ...	369.99
12VDC Adaptor 300ma adaptor; KPC-3	12.99
Host Master II+ IBM software	89.99
Superfax II WX FAX program for IBM	59.99

Kantronics - continued

	AES Price
128K 128K memory upgrade; KPC-3/9612 .Δ	24.99
KAM 98 Single port multi-mode dig controller	399.99
12VDC Adaptor 300ma adaptor; KAM 98	12.99
KAM XL All mode TNC w/DSP modems	399.99
12VDC Adaptor 300ma adaptor; KAM XL	12.99
APRS adapter cable; GPS to Kantronics TNC .	32.99

KENWOOD (KEN)

DRU-2 Dig recording unit; TS-950SDX .....Δ	$139.99
SP-950 Ext spkr/audio filters; TS-950SDX .....Δ	149.99
TS-B2000* PC ctl HF/6m/2m/430 Xcvr/tuner .†	*1549.99
***Price w/instant coupon; coupon expires 10/31/01**	
Heil gold mic/stand/cable FREE w/TS-B2000 thru 10/31/01	
TS-2000* HF/6m/2m/430 Xcvr/ant tuner ..†	*1949.99
***Price w/instant coupon; coupon expires 10/31/01**	
Heil gold mic/stand/cable FREE w/TS-2000 thru 10/31/01	
*UT-20 1.2GHz module Kenwood install only	
TS-2000X HF/6m/2m/430/1.2 Xcvr/tuner	*2649.99
***Price w/instant coupon; coupon expires 10/31/01**	
Heil gold mic/stand/cable FREE w/TS-2000X thru 10/31/01	
KPS-15 23A switching ps w/fan, 25A surge	149.99
PS-53 Heavy duty 22.5A power supply	249.99
ARCP-2000 PC control soft (inc w/TS-B2000)	82.99
DRU-3A Digital recording unit	129.99
MB-430 Mobile mounting bracket	49.99
MC-43S Extra 8-pin hand mic w/up-down .	59.99
MC-52DM Back-lit TTP hand mic	79.99
MC-60A 8-pin amp desk mic w/up-down ..	149.99
MC-80 8-pin electret desk mic w/up-down	109.99
MC-90 2-head DSP desk microphone	239.99
PG-2Y 13' DC cable	39.99
PG-2Z 6.5' heavy duty DC cable	37.99
RC-2000 Remote faceplate mobile kit	349.99
SP-23 External speaker	89.99
VS-3 Voice synthesizer	39.99
TS-870S 9-band Xcvr/Rcvr/IFDSP/tuner ....†	2149.99
Heil gold mic/stand/cable FREE w/TS-870S thru 10/31/01	
KPS-15 23A switching ps w/fan, 25A surge	149.99
PS-52 Heavy duty power supply	269.99
DRU-3A Digital recording unit	129.99
MC-43S Extra 8-pin hand mic w/up-down .	59.99
MC-60A 8-pin amp desk mic w/up-down ..	149.99
MC-80 8-pin electret desk mic w/up-down	109.99
MC-90 2-head DSP desk microphone	239.99
PG-2Y 13' DC cable	39.99
PG-2Z 6.5' heavy duty DC cable	37.99
SO-2 TCXO unit	179.99
SP-31 External speaker	99.99
VS-2 Voice synthesizer	69.99
TS-570D(G) 9-band Xcvr/Rcv/AFDSP/tuner/mic †	1099.99
Heil gold mic/stand/cable FREE w/TS-570D(G) thru 10/31/01	
TS-570S(G) 9-band Xcv/6m/Rcv/AFDSP/tune/mic †	1279.99
Heil gold mic/stand/cable FREE w/TS-570S(G) thru 10/31/01	
KPS-15 23A switching ps w/fan, 25A surge	149.99
PS-53 Heavy duty 22.5A power supply	249.99
DRU-3A Digital recording unit	129.99
MB-430 Mobile mounting bracket	49.99
MC-43S 8-pin hand mic w/up-down	59.99
MC-60A 8-pin amp desk mic w/up-down ..	149.99
MC-80 8-pin electret desk mic w/up-down	109.99
MC-90 2-head DSP desk microphone	239.99
PG-2Y 13' DC cable	39.99
PG-2Z 6.5' heavy duty DC cable	37.99
SO-2 TCXO unit	179.99
SP-23 External speaker	89.99
VS-3 Voice synthesizer	39.99
YK-88C-1 500 Hz CW filter	129.99
YK-88CN-1 270 Hz CW filter	129.99
YK-88SN-1 1.8 KHz SSB filter	129.99
TS-50S Compact HF Xcvr/SW Rcvr/mic/mt †	699.99
KPS-15 23A switching ps w/fan, 25A surge	149.99
PS-53 Heavy duty 22.5A power supply	249.99
AT-50 External HF auto tuner	329.99
PG-4M 18' extension cable for AT-50	29.99

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MB-13 Deluxe quick release mobile mt	55.99
MC-47 Extra multi-func 8-pin hand mic	59.99
MC-60A 8-pin amp desk mic w/up-down	149.99
MC-80 8-pin electret desk mic w/up-down	109.99
PG-2Y 13' DC cable	39.99
PG-2Z 6.5' heavy duty DC cable	37.99
SO-2 TCXO unit	179.99
SP-23 External speaker	89.99
TC-50/50Case Travel case for TS-50S/60S	89.99
YK-107C 500 Hz CW filter	129.99
7-pin DIN plug	4.99
8-pin DIN plug	6.99
13-pin DIN plug	9.99
HS-5 Deluxe headphones	79.99
HS-6 Lightweight headphones	59.99
KPS-15 23A switching ps w/fan, 25A surge	149.99
LF-30A 1kw PEP low pass filter	64.99
MC-43S 8-pin hand mic w/up-down switch	59.99
MC-60A 8-pin amp desk mic w/up-down	149.99
MC-80 8-pin electret desk mic w/up-down	109.99
PG-3B 15A DC line noise filter	29.99
SP-50B High quality external mobile speaker	55.99
TSU-5 Prog CTCSS decoder; TS-790A .....Δ	64.99
TU-7 Prog encoder; 2550/751A/TW-4100A .Δ	54.99
TU-8 CTCSS tone unit; TS-450S/690S .....Δ	54.99
UT-10 10w 1.2 GHz module; TS-790A .....Δ	549.99
YG-455C-1 500 Hz CW filter; TS-450/690 ..Δ	149.99
TM-642AD 50w 2m/25w 220FM/backlit TTP mic	739.99
TM-742AD 50w 2m/35w 440 FM/backlit TTP .†	639.99
DFK-3 9' separate display cable kit	26.99
DFK-4 13' remote cable kit	59.99
DFK-7 Deluxe 22' remote cable kit	89.99
MJ-88 Modular to 8-pin mic adapter	30.99
PG-2N Extra DC cable	17.99
TSU-7 CTCSS decoder unit	59.99
UT-50S 50w 6m unit	329.99
UT-220S 25w 220 MHz unit	329.99
UT-440S 35w 440 MHz unit	299.99
UT-1200 10w 1.2 GHz unit	399.99
DFK-4B 13' rem cable kit; TM-733A .....D	29.99
DFK-7B Dlx 22' rem cbl kit; TM-733A .....D	49.99
TM-D700A 50w 2m/35w 440 FM/1200/9600 †	599.99
MB-201 Extra mobile bracket	25.99
MJ-88 Modular to 8-pin mic adapter	30.99
PG-2N Extra DC cable	17.99
PG-4X 13' extension cable kit	69.99
PG-5A Packet data cable	15.99
VS-3 Voice synthesizer	39.99
TM-G707A 50w 2m/35w 440 FM/TTP mic ..†	299.99
TM-V7A 50w 2m/35w 440 FM Xcvr/TTP mic †	419.99
DFK-3C 9' separate display cable kit	44.99
DFK-4C 13' remote cable kit	64.99
DFK-7C Deluxe 23' remote cable kit	99.99
MB-201 Extra mobile bracket	25.99
MJ-88 Modular to 8-pin mic adapter	30.99
PG-2N Extra DC cable	17.99
PG-4S PC interface cable	32.99
PG-5A Packet data cable	15.99
VS-3 Voice synthesizer	39.99
TM-331A 25w 220 FM Xcvr w/TTP mic	499.99
KQT-8/TSU-6 Prog CTCSS decoder	49.99
MB-201 Extra mobile bracket	25.99
PG-2N Extra DC cable	17.99
TM-541A 10w 1.2 GHz FM Xcvr/TTP/encoder	449.99
DTU-2 Digital paging unit .....D	14.99
KQT-8/TSU-6 Prog CTCSS decoder	49.99
MB-201 Extra mobile bracket	25.99
PG-2N Extra DC cable	17.99
TM-261A 50w 2m FM Xcvr w/TTP mic .....†	169.99
TM-461A 35w 440 FM Xcvr w/TTP mic	439.99
MB-201 Extra mobile bracket	25.99
PG-2N Extra DC cable	17.99
TSU-8 CTCSS decoder	59.99

Kenwood - continued

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MC-52DM Back-lit TTP mic;241/331/441/541 ..	79.99
MC-53DM Back-lit TTP mic;251/733/742/255/V7A	79.99
Accessory for TH-75A/77A/25AT/26AT	
PG-3E Cig cord w/filter for DC-1 .....D	$ 9.99
Accessory for TH-28A/48A/78A	
ME-1 Memory expansion; also for TM-251A D	$ 4.99
TH-22ATH 5w 2m FM HT/batt/cgr/TTP	219.99
TH-42AT 2.5w 440 FM HT/batt/cgr/TTP ....Δ	229.99
TH-79AKSS 5w 2m/440 HT/batt/cgr/TTP	379.99
BT-9 4-AA battery holder	29.99
EMC-3 Lapel clip mic/ear piece	29.99
HMC-3 VOX/boom mic headset	59.99
KSC-8A Drop-in cgr; 25/26/75/77/22/42/79	26.99
KSC-14 2-pack rapid charger	87.99
PB-33 1200ma 6v battery	89.99
PB-34 600ma 9.6v (5w) battery	89.99
PG-2W DC cable w/fuse	17.99
PG-3J Cig lighter cord w/filter	36.99
SC-41 Soft case; TH-79A(D) w/PB-32 .....D	4.99
SC-43 Soft case; TH-79A(D) w/PB-33/34 D	4.99
SMC-32 Mini water resist rt angle spkr/mic	52.99
SMC-33 Speaker/mic w/remote control	65.99
SMC-34 Spkr/mic w/vol cont/function keys	39.99
TSU-8 CTCSS decoder; TH-22/42AT	59.99
WR-2 Water resistant bag; TH-22/42AT	29.99
TH-G71A 5w 2m/440 FM HT/batt/cgr/TTP	269.99
TH-D7A(G) 5w 2m/440 FM HT/1200/9600 TNC †	419.99
BC-19 Rapid charger	64.99
BT-11 4-AA battery holder	17.99
EMC-3 Lapel clip mic/ear piece	29.99
HMC-3 VOX/boom mic headset	59.99
J29-0631-13 Belt clip for batt; D7A/G71A	4.99
PB-38 650ma 6v battery	44.99
PB-39 600ma 9.6v (5w) battery	57.99
PG-2W DC cable w/fuse	17.99
PG-3J Cig lighter cord w/filter	36.99
PG-4P Computer control cable; TH-G71A	32.99
PG-4V VC-H1 connection cable TH-D7A(G)	49.99
PG-4W PC software/cable; TH-D7A(G)	55.99
SC-45 Soft case for TH-G71A/PB-38/39	15.99
SC-47B Black soft case for TH-D7A(G)	15.99
SC-47OR Orange soft case for TH-D7A(G)	15.99
SMC-32 Mini water resist rt angle spkr/mic	52.99
SMC-33 Speaker/mic w/remote control	65.99
SMC-34 Spkr/mic w/vol cont/function keys	39.99
WR-2 Water resistant bag; TH-G71A	29.99
TH-F6A 5w 2m/220/440 FM HT/lith ion batt †	389.99
BT-13 AA battery case	25.99
EMC-3 Lapel clip mic/ear piece	29.99
HMC-3 VOX/boom mic headset	59.99
PB-42L Extra lithium ion battery	79.99
PG-2W DC cable w/fuse	17.99
PG-3J Cig lighter cord w/filter	36.99
PG-4P Computer control cable	32.99
SC-51 Soft case w/swivel belt clip	16.99
SMC-32 Mini water resist rt angle spkr/mic	52.99
SMC-33 Speaker/mic w/remote control	65.99
SMC-34 Spkr/mic w/vol cont/function keys	39.99
BT-10 6 AA alk batt case; TH-235A .....D	2.99
PB-36 7.2v 950ma nicad batt; TH-235A ....D	9.99
EZ-PASS WIN 95 No-code tech study package D	9.99
VC-H1 Visual Communicator SSTV unit ....†	399.99
E30-3352-08 16-pin DIN/unterminated cbl	44.99
E59-0407-08 16-pin DIN plug only	29.99
KCT-24S VCH-1 to PC software/cable	58.99
PG-4T VC-H1 to Kenwood FM mobile cable	49.99
SC-46P Protective case	18.99
EK-AMA1 Portable emergency kit special order	5399.99
CONSUMER ELECTRONICS	
TKM-707 150w HF marine SSB Xcvr spec order	1249.99
KAT-1 HF marine auto ant tuner ...spec order	569.99
UBZ-GM14 FRS black handheld/WX/vibrate D	39.99
UBZ-LH14BK Deluxe FRS black handheld .....†	79.99

Kenwood - continued

	AES Price
EMC-3 Label clip mic/ear piece	29.99
HMC-3 VOX/boom mic headset	59.99
SMC-34 Spkr/mic/vol cont/function keys	39.99
UBC-3 Nicad desk charger .....D	16.99
UBC-4 Nicad desk charger	25.99
UPB-2 Nicad battery pack	24.99
USC-5B Black nylon case; UBZ-LH14BK	15.99
UBZ-AL14BK Family radio svc black handheld D	29.99
UBZ-AM14BK FRS black handheld .....pair,D	59.99
USC-4B Black nylon case; UBZ-LF14 .....Δ	4.99

KOSS (KOS)

HD/33 Computer stereophone/vol control ....Δ	$ 4.99
HP/6 Port stereophone w/vol/adj headband D	4.99
KTX/2 Portable stereophone/adj headband .D	5.99
KTX/4 Collapsible stereophone w/vol control	14.99
QZ/99 Noise reduction stereoph w/mono sw	59.99
QZ/2000 Active noise reduction stereophone	179.99
SP/5 Sidefiring yellow stereophone .....D	4.99

LDG (LDG)

AT-11MP-ASM 160-10m auto tuner, assembled	$219.99
MP-AL-Cable MP Alinco interface cable	5.99
MP-IC-Cable MP Icom interface cable	5.99
RBA-1-ASM Rem 4:1 balun; long/random/end fed	30.99
Z-11-ASM 30w QRP auto tuner, assembled	169.99

LAKEVIEW (LAK)

9175 75m 7' Hamstick antenna	$ 24.99
9140 40m 7' Hamstick antenna	24.99
9130 30m 7' Hamstick antenna	24.99
9120 20m 7' Hamstick antenna	24.99
9117 17m 7' Hamstick antenna	24.99
9115 15m 7' Hamstick antenna	24.99
9112 12m 7' Hamstick antenna	24.99
9110 10m 7' Hamstick antenna	24.99
9106 6m 4.5' Hamstick antenna	24.99
901 Dipole mount for 2 Hamsticks	13.99
IM-1 Inducti-match for 75-12m mobile ant	17.99
TM-1 License plate mount, ⅜-24	44.99
TM-1-Plus License plate mount, SO-239	44.99

LARSEN (LAR)

27-31 MHz ANTENNA	
NMO-27B 10m black ant only (no mount)	$ 36.99
NMO-27C 10m ant only (no mount)	33.99
47-54 MHz ANTENNA	
NMO-50B 6m black ant only (no mount)	$ 36.99
NMO-50C 6m ant only (no mount)	33.99
144-174 MHz ANTENNAS	
NMO-150B 2m black ant only (no mt), 3 db	$ 33.99
NMO-150C 2m ant only (no mount), 3 db	30.99
220-265 MHz ANTENNAS	
NMO-220B 220 black ant only (no mt), 3 db	$ 36.99
NMO-220C 220 ant only (no mount), 3 db	30.99
440-460 MHz ANTENNAS	
NMO-440B 440 black ant only (no mt), 5 db	$ 35.99
NMO-440C 440 ant only (no mount), 5 db	29.99
MM-2/70 2m/440 ¼ wave/2db mag mt ant	48.99
NMO-2/70B 2m/440 blk ant only (no mt), 2/4db	64.99
NMO-2/70C 2m/440 ant (no mount), 2/4db	59.99
NMO-2/70-SH 2m/440 ant (no mt), ¼ wv/2db	38.99
NMO-012 135-160/148-173 2.5db (no mt) .....D	19.99
NMOQ-Spec 136-512 MHz ¼ wave ant (no mt)	12.99
NMOQ-Spec-B 136-512 black ¼ wv ant (no mt)	15.99
NMOQ-Spec-K 136-512MHz ¼ wv ¾" hole ant	27.99
NMOQ-2/70-B 2m/440 ¼ wv cell look ant (no mt) D	34.99
ON GLASS ANTENNAS	
KG-144-UD-PL 2m 3 db on glass antenna	$ 76.99
KG-220-UD-PL 220 3 db on glass antenna	76.99
KG-440-UD-PL 440 2.4 db on glass antenna	70.99
KG-2/70-CX-PL 2m/440 2.5/4.5db on glass	111.99
KG-Reinstall Reinstall kit for KG-ants	6.99

Larsen - continued

AES Price

KULDUCKIES - For Hand-helds

KD4-146	2m BNC Kulduckie	$ 19.99
KD4-2/70	2m/440 BNC Kulduckie	33.99
KD4-222	220 BNC Kulduckie	19.99
KD14-445	440 ¼ wave BNC Kulduckie	18.99
KD4-146-HQ	2m part helical, part ¼ wave BNC	24.99
KD14-2M-HW	2m ½ wave BNC antenna	37.99
KD14-440-HW	440 ½ wave BNC antenna	37.99

ACCESSORIES

BSA-K	Base mtg kit; NMO/UHF mt mobile ant	$ 50.99
NMO-B38	NMO mt hdw/A-7 NLA adapter	13.99
NMO-CAP-B	Black rain cap for NMO mount	4.99
NMO-K	¾" hole mt w/coax for NMO ant	15.99
NMO-MM	Magnet mt, coax for NMO ant	31.99
NMO-TLP	Low profile tnk lid mt, coax; NMO ant	29.99
PO-K	Roof mt, coax for SO-239 ant	27.99
PO-MM	Magnet mt, coax for SO-239 ant	35.99
PO-TLM	Trunk lip mt, coax for SO-239 ant .D	24.99
RG-SS	Extra super seal NMO gaskets (3)	3.99
SPRING	Shock spring	10.99
TMB-34	Trunk mtg bkt for NMO antenna	5.99
TMB-34B	Black trunk mtg bkt for NMO ant	7.99
W-2/70B	2m/440 black replacement whip	24.99
W-490	49" replacement whip	9.99
W-490B	Black 49" replacement whip	12.99

LOGSAT (LOG)

Logsat Professional	Satellite tracking CDROM	$ 69.99

M² (MSQ)

KT-36XA	20/15/10m 6el 32' boom beam	1373.99
40M-1LDX	6.9-10 MHz rotatable dipole	494.99
20M-4DX	20m 7.4db 4el 34' boom beam	582.99
17M-3DX	17m 6.3db 3el 18' boom beam	439.99
17M-5DX	17m 8.6db 5el 36' boom beam	582.99
15M-4DX	15m 8.5db 4el 33' 8" boom beam	494.99
12M-4DX	12m 8.6db 4el 27' boom beam	439.99
10M-4DX	10m 8.7db 4el 23' boom beam	439.99
6M-3	6m 50-50.6 or 51-54 6.4db 3el 6'9" bm beam	138.99
6M-5X Upgrade	Kit; 6M-5 to 6M-5X .....Δ	49.99
6M-5X	6m 50-50.5 or 51-54 9.4db 5el 18' bm beam	230.99
6M-7JHV	6m 50-50.4 10.9db 7el 30'8"bm beam	287.99
6M-2WLC	6m 49.7-50.5 11.9db 9el 39' 6" boom T*	507.99
6M-9KHW	6m 50-50.4 12.7db 9el 49' 4" bm beam	549.99
6M-HO-LOOP	6m 50-50.3 4.4db horiz loop ant	103.99
6" x 1/2"	3/8-24 mobile mast for loop	9.99
16" x 1/2"	3/8-24 mobile mast for loop	11.99
18" x 5/8"	3/8-24 mobile mast for loop	15.99
36" x 1/2"	3/8-24 mobile mast for loop	25.99
50" x 1/2"	3/8-24 mobile mast for loop	28.99
MAST BKT KIT	For 6M-HO-LOOP	17.99
2M-4	2m 7.5db 4el 4' boom beam	103.99
2M-7	2m 10.3db 7el 8'10" boom beam	127.99
2M-9FM	2m 145-148 12db 9el 14' 6" bm beam	138.99
2M-9SSB	2m 144-146 12db 9el 14' 6" bm beam	138.99
2M-12	2m 12.8db 12el 19'6" boom beam	184.99
2M-5WL	2m 14.8db 17el 33' boom beam	230.99
2M-18XXX	2m 144-146 15.3db 18el 36'3" bm beam	264.99
2M-8WLHD	2m 144-144.7 17db 21el 55' bm beam	611.99
2M-CP14	2m 10.3db 7h/7v 10'6"bm circ beam	195.99
2M-CP22	2m 12.5db 11h/11v 18'6"bm circ beam	264.99
PS-2M	2m polarity switch; circ pol beam	161.99
FG X-Boom Kit	For circular antennas, etc.	149.99
2M-XP20	144-146 13.3db 10h/10v 21.5' bm cross pol	230.99
2M-XP28	144-146 15.1db 14h/14v 34.5'bm cross pol	318.99
2M5-440XP	2m/440 9/12db 5/10el 5'8" bm beam	184.99
2M-HO-LOOP	2m 144-144.5 4.86db horiz loop	47.99
6" x 1/2"	3/8-24 mobile mast for loop	9.99
16" x 1/2"	3/8-24 mobile mast for loop	11.99
18" x 5/8"	3/8-24 mobile mast for loop	15.99
36" x 1/2"	3/8-24 mobile mast for loop	25.99
50" x 1/2"	3/8-24 mobile mast for loop	28.99
Big-Foot	4x-mag mt; 2M-HO-LOOP stack/etc	109.99
MAG-KIT	Magnet mt kit; single 2m-HO-LOOP	22.99

M² - continued

AES Price

MAST BKT KIT	For 2M-HO-LOOP	17.99
STACK-KIT	Stack kit for 2 2m-HO-LOOP's	67.99
TOP BKT KIT	For 2M-HO-LOOP	22.99
EB-144	2m Eggbeater omni/hor/rhc overhead	150.99
RK-2M	2m 6db overhead reflector kit/base mt	43.99
222-7EZ	220 9.8db 7el 5' 8" boom beam	103.99
222-10EZ	220 12db 10el 9' 9" boom beam	114.99
222-5WL	220 15.2db 15el 23'3" boom beam	184.99
222-7WL	220 16.4db 23el 32'5" boom beam	230.99
222-XP30	220 15.2db 15h/15v 24'3"bm cross pol	318.99
222-HO-LOOP	220-224 4.75db horiz loop ant	47.99
6" x 1/2"	3/8-24 mobile mast for loop	9.99
16" x 1/2"	3/8-24 mobile mast for loop	11.99
18" x 5/8"	3/8-24 mobile mast for loop	15.99
36" x 1/2"	3/8-24 mobile mast for loop	25.99
50" x 1/2"	3/8-24 mobile mast for loop	28.99
MAG-KIT	Magnet mt kit; single 222-HO-LOOP	22.99
440-470-5W	440-470 7.8db 5el 2'2"bm beam	150.99
420-50-11	432 11.3db 11el 5' bm rear mt beam	103.99
440-18	432 14.5db 18el 11'4" boom beam	138.99
440-21ATV	432 15.9db 21el 14'6" bm ATV beam	161.99
436-CP30	432 14.5db 15h/15v 9'9"bm circ beam	264.99
436-CP42UG	432 16.8db 21h/21v 18'10"bm circ	310.99
PS-70CM	432 polarity switch; circ pol beam	161.99
FG X-Boom Kit	For circular antennas, etc.	149.99
432-9WL	432 17.3db 28el 21' boom beam	195.99
432-13WLA	432 18.6db 38el 30'8" bm beam	264.99
432-HO-LOOP	430-436 5db horiz loop ant	47.99
6" x 1/2"	3/8-24 mobile mast for loop	9.99
16" x 1/2"	3/8-24 mobile mast for loop	11.99
18" x 5/8"	3/8-24 mobile mast for loop	15.99
36" x 1/2"	3/8-24 mobile mast for loop	25.99
50" x 1/2"	3/8-24 mobile mast for loop	28.99
Big-Foot	4x-mag mt; 432-HO-LOOP stack/etc	109.99
MAG-KIT	Mag mt kit; single 432-HO-LOOP	22.99
STACK-KIT-70CM	Stack kit; 2 432-HO-LOOP's	67.99
TOP BKT KIT	For 432-HO-LOOP	22.99
EB-432	432 Eggbeater omni/hor/rhc overhead	138.99
RK-70CM	432 6db overhead reflector kit/base mt	43.99
902-6W	900MHz 10db 6el 2' boom beam	68.99
902-10EZ	900MHz 12.6db 10el 3'5"bm beam	103.99
902-18EZ	900MHz 14.8db 18el 5'4"bm beam	150.99
902-14WLA	900MHz 18.8db 40el 15 4" bm beam	230.99
23CM-22EZA	1.2GHz 16db 22el 5'2" bm beam	138.99
23CM-35	1.2GHz 18.4db 35el 10' bm beam	172.99
2M-2-Port-PD	2m 2-port type N power divider	65.99
70CM-2-Port-PD	432 2-port N power divider	65.99
23CM-2-Port-PD	1.2GHz 2-port N power divider	65.99
FAST MAST	20' extended portable alum mast	183.99
OR-2800PDC	35 sq ft azimuth rotor/control/8-wire	1572.99
RC-2800PP	Control box; prop pitch .spec order	549.99

***These items are drop-shipped (shipped direct to you from the M² factory). On these factory drop-shipments we prefer payment in full with order, however, we will accept your credit card with the understanding that we will process the charge when we order the merchandise from the factory. This means that you may be billed before you receive your drop-shipped merchandise. Shipment is FOB Fresno, California via truck, COD for freight charges only. Freight charges will be collected upon delivery by the carrier. Please allow sufficient time for delivery on these special order items.**

MFJ ANTENNA TUNERS (MFJ)

989C	Dlx 3kw PEP w/roller inductor	$319.99
986	3kw PEP w/roller inductor	299.99
962D	1.5kw PEP/meter/switch/balun/roller ind	249.99
969	HF & 6m 300w roller inductor tuner	189.99
949E	300w/PEP meter/dummy/switch/balun	139.99
948	300w/meter/switch/balun	119.99
941E	300w tuner w/meter, switch, balun	109.99
945E	300w tuner w/meter plus 6m	99.99
20	Mobile bracket for 945E	4.99
901B	Versa Tuner 200w ant tuner	79.99
910	80-10m mobile antenna matcher	19.99
16010	200w random wire tuner	49.99

MFJ - continued

AES Price

903	6m antenna tuner	49.99
906	6m antenna tuner w/wattmeter	79.99
914	Auto tuner extender	59.99
921	2m/220 300w PEP tuner/SWR/wattmeter	69.99
922	2m/440 150w tuner/SWR/wattmeter	79.99
924	440 MHz 300w PEP tuner/SWR/wattmeter	69.99
934	300w tuner w/artificial ground	169.99
940A	10m antenna tuner/SWR/wattmeter ..D	59.99

MEMORY KEYERS

451	Dedicated CW keyboard w/memory	$ 99.99
451X	Morse keyboard interface only .....Δ	64.99
452	CW keyboard/keyer w/disp/keyboard	129.99
452X	CW keyboard/keyer w/disp, no keyboard	99.99
498	Dlx CW keyboard/keyer w/disp/keyboard	179.99
498X	Dlx CW keyboard w/disp, no keyboard Δ	109.99
490	492 keyer/Bencher paddle combo	184.99
490X	492 keyer for use w/Bencher or 564	99.99
564	Deluxe iambic paddle for 490X	49.99
492	192 char menu driven memory keyer	89.99
80	8000 char memory expansion for 492 Δ	14.99
492X	Memory keyer w/8000 char expansion Δ	89.99
78	Remote control for 492/492X .....Δ	19.99
493	32K char menu driven mem keyer	129.99
79	Remote control for 493	29.99
551	IBM AT-101 keyboard for 493	39.99
5409	9-pin serial port 6' cable for 493	12.99
5425	25-pin serial port 6' cable for 493	12.99

ELECTRONIC KEYERS

407D	Deluxe electronic keyer	$ 69.99
401D	Econo keyer	49.99

KEYER/PADDLES

422D	Keyer/Bencher paddle combination	$154.99
422DX	Keyer only	79.99
441	SlimLine econo keyer	59.99
442	SlimLine keyer/Bencher paddle combo	149.99
442X	SlimLine keyer only .....Δ	69.99
447	SlimLine deluxe keyer	79.99
564	Deluxe iambic chrome paddle	49.99
564B	Deluxe iambic black paddle	49.99

COMPUTER INTERFACES

1224	Interface	$ 99.99
1265	Disk software for VIC/C64; 1224 ....D	9.99
1285	Software for IBM; 1224	19.99
1265B	Disk software; VIC/C64; 1225 .....D	.49
1270C	Packet radio TNC2	119.99
47B	Mailbox 128k memory; 1270/1274 ...Δ	39.99
47C	Mailbox 512k memory; 1270/1274 ..Δ	69.99
1278B	Multi-mode controller w/Pactor	279.99
1278B/DSP	Controller w/Pactor & DSP	359.99
45A	32K RAM IC only .....D	2.99
48	1278 upgrade	24.99
48B	1278B upgrade .....Δ	19.99
52	TNC2 deviation meter board	29.99
52B	FM dev/temp/volt meter for TNC .....Δ	24.99
780	DSP data filter for 1278B	89.99
1282	C64 starter pack .....D	9.99
1282B	Multicom package; C64/128 .....D	19.99
1282BD	Multicom 64 disk only .....D	4.99
1284	5¼" IBM starter pack .....D	19.99
1284D	1284 disk only .....D	4.99
1284M	3½" IBM starter pack	24.99
1284MD	1284M disk only .....Δ	9.99
1284W	MFJCOM for Windows	29.99
1287	Macintosh starter pack .....D	9.99
1287B	Mac multicom starter pack .....Δ	29.99
1287BD	1287B disk only .....Δ	4.99
1287D	1287 disk only .....D	1.99
1288	Packet terminal program .....D	1.99
1289	5¼" multicom software for IBM .....D	19.99
1289D	1289 disks only .....D	4.99
1289M	3½" multicom software for IBM	59.99
1289MD	1289M disks only .....Δ	29.99
1289W	Multicom for Windows with cable	59.99

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1289WD	Multicom for Windows, less cable	49.99
1214PC	Multimode interface for IBM	139.99
40B	TNC2 upgrade 32K/RAM D	1.99
40C	TNC2 upgrade 32K D	9.99
43	Real time clock for TNC	19.99
781	DSP filter for any TNC or controller	119.99
1271	Packet card for C64/128 D	14.99
1272B	TNC to microphone interface	39.99
1272BYH	TNC/mic switch; KAM HF	39.99
1272BYV	TNC/mic switch; KAM VHF	39.99
1272M	TNC/mic RJ-45 switch; MFJ/PK-900	39.99
1272MYH	TNC/mic RJ-45 switch; KAM HF Δ	29.99
1272MYV	TNC/mic RJ-45 sw; KAM VHF; KPC3	39.99
1273	Packet tuning indicator D	2.99

SSB/CW FILTERS

722	SSB/CW notch filter Δ	$ 59.99
751B	Super tunable CW audio filter	69.99
752C	Dual tunable SSB/CW filter	89.99
784B	Deluxe tuneable DSP filter	229.99
5184	Cable pack for 784B	7.99

PHONE PATCH

624D	Phone patch w/audio VU meter	$119.99

DUMMY LOADS

250	2kw PEP dummy load w/oil	$ 59.99
250X	2kw PEP dummy load, less oil	39.99
21	1 gal industrial xfmr oil for wet dummy	24.99
260C	300w 0-650 MHz dry dummy load	34.99
260CN	300w 0-650 MHz type N dry dummy	39.99
264	1.5kw 0-650 MHz dry dummy load	69.99
264N	1.5kw 0-650 MHz type N dry dummy	79.99

SWR/WATTMETERS

812B	144-220 MHz SWR/FS/wattmeter	$ 34.99
815B	160-6m cross-needle SWR/wattmeter	79.99
816	1.8-30 MHz toroidal SWR/wattmeter	34.99
817	2m/440 cross needle meter	89.99
840	2m 5w wattmeter/dummy load for HT Δ	12.99
841	2m 5w in-line HT wattmeter/SWR	39.99
844	Compact 2m/440 SWR/wattmeter	69.99
860	1.8-60 MHz cross-needle meter	44.99
862	2m/220/440 cross-needle meter	54.99
864	1.8-60MHz/2m/440 cross needle meter	84.99
870	1.6-60MHz Grandmaster SWR/wattmeter	124.99
872	1.8-200MHz Grandmaster SWR/wattmeter	94.99
873	125-525MHz Grandmaster SWR/wattmeter	104.99
874	1.8-525MHz Grandmaster SWR/wattmeter	159.99

SHORTWAVE ACCESSORIES

306	Car radio SWL converter	$ 89.99
956	LW/MW/SW preselector/tuner	49.99
959B	SW receiver ant tuner w/preamp D	89.99
959C	SW receiver ant tuner w/preamp	99.99
1020C	.3-30 MHz indoor active receive ant	79.99
1022	300KHz-200MHz active rcv antenna	49.99
1024	.05-30 MHz outdoor active rcv ant	129.99
1040B	Deluxe receiver preselector	99.99
1045C	Receiver preselector	69.99

BOOKS

30	Golden Classics book	$ 9.95
31	Oscar book Δ	3.99
32	Packet Made Easy book	9.95
33	Mobile Handbook book	12.95
35	World of Ham Radio book Δ	4.99
36	Shortwave Listeners Guide; Apts/Condos	9.95
37	Ham Communications Circuit Files book	9.95
38	Easy-up Antennas book	16.95
3036	The Packet Radio Operators book	12.95
3101	Fox Hunt Adventure book	7.95
3211	Technician license guide	9.95
3213	General license guide	9.95
3215	Extra license guide	9.95
3301	Troubleshooting Antenna & Feedlines book	12.95
3302	73 Dipole and Long-Wire Antennas	12.95
3303	73 Vertical, Beam, and Triangle Ants	12.95

MFJ - continued

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3305	Antennas & Transmission Lines book	19.95
3400	Morse Code: Breaking the Barrier	19.95
3502	Solid State QRP Projects	12.95
3504	FET Principles, Experiments & Projects	16.95
3506	Ferromagnetic-Core Design book	19.95
3507	Practical RF Design Manual	19.95
3508	Radio Components Handbook D	12.99
3509	Ladder Crystal Filters	19.95

CLOCKS

105C	24-hour quartz wall clock	$ 19.99
107B	24-hour digital clock	9.99
108B	24/12-hour dual disp digital clock	19.99
112B	Deluxe world map clock	24.99
114B	Giant LED desk/wall 12/24-hr clock D	49.99
113	24/12-hr 1.8" LED clock/batt back-up	19.99
115	DX'er 24-hour analog world wall clock	24.99
116DC	12-hour 12vdc LED clock Δ	9.99
118	Giant 24/12 hour LCD clock	24.99
119	Giant 24/12 hour LCD/in temp clock D	24.99
119B	Giant 24/12 hour LCD/in temp clock Δ	29.99
123	Eternity solar atomic clock	79.99
125	Calendar 24-hour analog wall clock	29.99
126	Multi-color 12-hr quartz wall/24-hr trim Δ	19.99
128	12/24 hour analog atomic wall clock	59.99
132AT	12-hour LCD see-thru clock Δ	19.99
134AT	24-hour LCD see-thru clock Δ	19.99
152B	Thermo clock; in/out temp/12/24-hr clock	24.99

ANTENNAS

343	1⅛" hole mount for 3/8-24 whip	$ 9.99
1402	2m/440 3/5.5db 16.5" 100w ant only	34.99
1412	2m/440 3/5.5db 40" 200w ant only	49.99
1422	2m/440 3.2/5.7db 41.5" 150w ant only	49.99
1432	2m/440 5/7.6db 62.5" 150w ant only	69.99
1436	6m/2m/440 2.15/4.5/7.2db 59" ant only	79.99
333BM	3.5" HiFlux NMO mag mt; not 1436	14.99
333BS	3.5" HiFlux SO-239 magt mt not 1436	14.99
335BM	5" HiFlux NMO mag mt; not 1436	19.99
335BS	5" HiFlux SO-239 mag mt; not 1436	19.99
340	Mirror/luggage pipe clamp mount	34.99
345	Trunk/hatchback lip mount	34.99
1516	2m 15' vertical base antenna	94.99
1532N	2m/440/1.2GHz 8.2' N vert base ant Δ	79.99
1621	40-10m 54" portable ant w/tuner	89.99
1710	2m ⅜ wave telescopic antenna	9.99
1712	2m/440 telescopic antenna	14.99
1713	2m/440 SuperFlex Thin Duk HT ant	19.99
1713S	2m/440 SuperFlex SMA Thin Duk ant	19.99
1714	2m ½ wave telescopic antenna	16.99
1715	2m/440 SuperFlex gain Thin Duk HT ant	24.99
1715S	2m/440 SuperFlex gain SMA Thin Duk	24.99
1716	2m/440 duck for HT	16.99
1716S	2m/440 SMA duck for HT	16.99
1717	2m/2.15db 440 duck for HT	21.99
1717PL	2m/440 foldover flexi-duck, PL-259	24.99
1717S	2m/2.15db 440 SMA duck for HT	21.99
1719	2m/440/1.2GHz Midget Duck	19.99
1719S	2m/440/1.2GHz SMA Midget Duck	19.99
1720S	6m/2m/440 SMA Duck	29.99
1721	2m HT UltraLite mag mt antenna	14.99
1722	2m/440 HT UltraLite mag mt antenna	18.99
1724B	2m/440 magnet mt antenna	16.99
1727	10m magnet mt antenna	39.99
1728B	6m ¼ wv/2m ⅝ wv mag ant/PL259/BNC	29.99
1729	2m/440 magnet mt antenna	34.99
1730	2m pocket roll-up vertical antenna	19.99
1734	2m/440 2.6/6.3db glass mt antenna	39.99
1736	6m J-Pole travel antenna	29.99
1738	2m 2.6db glass mt antenna	29.99
94	Remount kit for 1734/1738	4.99
1740	2m ¼ wave ground plane ant	19.99
1750	2m ⅝ wave ground plane ant	24.99
1752	220 ⅝ wave ground plane ant	24.99
1754	2m/440 ground plane antenna	29.99

MFJ - continued

		AES Price
1756	6m DX vertical antenna	79.99
1762	6m 6db 3 el 6' boom beam	79.99
1763	2m 3el portable beam	44.99
1764	2 & 6m dual ⅝ super gain base ant	49.99
1768	2m/440 4/7 el beam antenna	79.99
1778	G5RV 160-10m 102' ant (needs tuner)	39.99
1786	Super Hi-Q 10-30 MHz loop/dlx control	349.99
1312B	12vdc 300ma adapter; 1782/1786	14.99
1788	Super Hi-Q 40-15m loop/dlx controller	389.99
1796	40/20/15/10/6/2m 10' vertical ant	189.99
1798	80/40/30/20/17/15/12/10/6/2m 20' vert	269.99
1816	2m/440 8.5" flexible/telescopic duck Δ	9.99
1817	2m/440 14.5" flexible/tele duck D	24.99
1828B	Magnet mt BNC scanner antenna D	9.99
1828M	Mag mt Motorola plug scan ant D	4.99
1899T	80-6m telescopic antenna for FT-817	129.99
1910	33' telescoping fiberglass mast	79.99

CABLES

5020	MFJ TNC - Yae FT50R/compat	$ 15.99
5020YV	KAM VHF/KPC3 - Yae FT50R/compat	15.99
5022	MFJ TNC - Alinco/Standard HT cable	15.99
5022YV	KAM VHF/KPC3 - Ali/Sta HT cable	15.99
5024	MFJ TNC - Ico/Yae/Ali/RS HT cable	15.99
5024B	PK/PacComm/compat - Ico/Yae/RS	15.99
5024YV	KAM VHF/KPC3 - Ico/Yae/Ali/RS HT	15.99
5026	MFJ TNC - Kenwood HT cable	15.99
5026X	PK-232 - Kenwood HT cable Δ	6.99
5026YV	KAM VHF/KPC3 - Kenwood HT cable	15.99
5026Z	PK-88 - Kenwood HT cable Δ	.99
5060	MFJ TNC - Ken/Yae acc 6-pin mini DIN	19.99
5060YQ	KPC9612 - Ken/Yae acc 6pin mini DIN	19.99
5060YV	KAM VHF/KPC3 - Ke/Ya acc 6pin mni DIN	19.99
5063	MFJ TNC - Icom HF acc 8-pin DIN	19.99
5063YH	KAM HF - Icom HF acc 8-pin DIN	19.99
5064	MFJ TNC - Icom VHF acc 8-pin DIN	19.99
5064YQ	KPC9612 - Icom VHF 8-pin DIN Δ	9.99
5064YV	KAM VHF/KPC3 - Ico VHF acc 8pin DIN Δ	9.99
5065	MFJ TNC - Ico IC-706 acc 13-pin DIN	19.99
5065YH	KAM HF - Ico IC-706 acc 13-pin DIN	19.99
5065YV	KAM VHF - Ico IC706 acc 13-pin DIN	19.99
5066	MFJ TNC - Kenwood HF acc 13-pin DIN	19.99
5066YH	KAM HF - Ken HF acc 13-pin DIN	19.99
5080	MFJ TNC - Yaesu 8-pin cable	15.99
5080M	MFJ TNC - Yaesu 8-pin modular	15.99
5080MYV	KAM VHF/KPC3 - Yae 2500M/7400H	15.99
5080MZ	PK-88 - Yae 2500M/7400H D	.99
5080YH	KAM HF port - Yaesu 8-pin cable	15.99
5080YV	KAM VHF/KPC3 - Yaesu 8-pin cable	15.99
5082	Open end - 8-pin mic cable	9.99
5084	MFJ TNC - Icom 8-pin cable	15.99
5084M	MFJ TNC - Icom 8-pin modular	15.99
5084MYV	KAM VHF/KPC3 - Icom 8-pin mod	15.99
5084YH	KAM HF port - Icom 8-pin cable	15.99
5084YV	KAM VHF/KPC3 - Icom 8-pin cable	15.99
5086	MFJ TNC - Kenwood/Alinco 8-pin cable	15.99
5086M	MFJ TNC - Kenwood 8-pin modular	15.99
5086MYV	KAM VHF/KPC3 - Ken 8-pin mod	15.99
5086YH	KAM HF port - Ken/Ali 8-pin cable	15.99
5086YV	KAM VHF/KPC3 - Ken/Ali 8-pin cable	15.99
5088M	MFJ TNC - Radio Shack 8-pin modular	15.99
5205	5-pin DIN open end cable	4.99
5208	Open end - Ico HF/VHF acc 8-pin DIN	9.99
5213	Open end - Kenwood acc 13-pin DIN	9.99
5220R/5220	Open end - Yae FT50R/compat	9.99
5222	Open end - Ali split HT cable	9.99
5224	Open end - Ico/Yae/Ali/RS HT cable	9.99
5226	Open end - Kenwood HT cable Δ	7.99
5268	Open end - modular phone plug cable	9.99
5412	IBM printer cable	9.99
5413	RS-232 6' cable DB-25M-25F Δ	4.99
5414	RS-232 6' cable DB-25M-9F	9.99
5803/10	3' coax jumper cable	5.99

MFJ - continued

AES Price

RADIOS/TRANSCEIVERS

8100K	Shortwave regenerative Rcvr kit	$ 69.99
8100W	Shortwave regenerative Rcvr wired	89.99
8121	AM/FM/shortwave portable receiver	39.99
8400K	2m receiver kit Δ	39.99
8400W	2m receiver wired Δ	59.99
8621	5w 2m data radio w/145.01 MHz	139.99
8621X2	5w APRS ready 2m data radio/144.39	149.99
4110	Portable AC power supply	49.99
5100	Data radio cable - MFJ/TAPR	15.99
5100X	Data radio cable - PK-232 Δ	2.99
5100YH	Data radio cable - KPC-9612 Δ	6.99
5100YV	Data radio cable - KAM/KPC-3	15.99
5106	Open end - 6pin mini Ken/Yae cable	4.99
9015	5w 15m CW Xcvr	169.99
9020	5w 20m CW Xcvr	169.99
9030	5w 30m CW Xcvr	169.99
9040	5w 40m CW Xcvr	169.99
27	Handle for CW station	4.99
412	Plug-in Curtis keyer	49.99
726	Plug-in audio filter	29.99
971	200w portable ant tuner w/meter	99.99
1770	Portable 15m dipole Δ	29.99
1771	Portable 17m dipole Δ	29.99
1772	Portable 20m dipole	39.99
1773	Portable 30m dipole Δ	24.99
1774	Portable 40m dipole	39.99
4110	Portable AC power supply	49.99
4114	Rechargeable power pack	69.99
9115B	9015 Xcvr/tuner/ps/ant package Δ	269.99
9117B	9017 Xcvr/tuner/ps/ant package Δ	249.99
9120B	9020 Xcvr/tuner/ps/ant package Δ	269.99
9130B	9030 Xcvr/tuner/ps/ant package	329.99
9140B	9040 Xcvr/tuner/ps/ant package	329.99
9402X	7w PEP 2m SSB Xcvr w/mic	269.99
9406X	10w PEP 6m SSB Xcvr w/mic	249.99
9410X	20w PEP 10m SSB Xcvr w/mic	249.99
9420X	12w 20m SSB Xcvr w/mic	229.99
9440X	12w 40m SSB Xcvr w/mic	229.99
9475X	12w 75m SSB Xcvr w/mic	229.99
415B	SSB Xcvr CW adapter; 9420X/9440X	49.99
416	CW adapter for 9402X/9406X/9410X	49.99
971	200w HF portable ant tuner w/meter	99.99
1770A	10m dipole for 9410X	39.99
4110	Portable AC power supply	49.99
4114	Rechargeable power pack	69.99

ACCESSORIES

1305	5vdc 300ma adapter D	$ 8.99
1306	6v 300ma adapter	14.99
1312	12vdc 300ma adapter, 2.5mm plug	14.99
1312B	12vdc 300ma adapter, 2.1mm plug	14.99
1315	12vdc 500ma adapter	14.99
1316	12vdc 1.5A adapter	19.99
15	HamGear belt loop radio holder	14.99
18	HamGear chest harness/cargo pocket	29.99
92AA01	1300ma AA NiMH cell each	2.99
92AA10	10-pack 1300ma AA NiMH cells	24.99
201	1.5-250 MHz dip meter	109.99
202B	RF noise bridge	59.99
203	160-10m bandswitched dip meter D	69.99
204B	HF Antenna bridge	79.99
206	Antenna current probe D	59.99
207	160-10m SWR analyzer	79.99
208	2m SWR analyzer	79.99
209	1.8-170 MHz SWR analyzer	129.99
212	MatchMaker tune up device	79.99
214	Amplifier Saver Δ	34.99
216	Deluxe Amplifier Saver Δ	44.99
218	SWR analyzer, 150-170 MHz D	29.99
219B	SWR analyzer, 440 MHz/N/SO-239 adapt	89.99
224	2m FM signal analyzer	149.99
249B	1.8-170 MHz SWR analy/LCD counter	219.99
259B	1.8-170 MHz SWR analy/RF res meter	239.99

MFJ - continued

AES Price

269	1.8-170+440 MHz SWR analy/RF res mtr	319.99
29C	Carrying case w/window; 209/249B/259B	24.99
39C	Carrying case w/window; 269	24.99
66	1.8-30/30-170 dip coils; 209/249B/259B	19.99
92AA10	10-pack 1300ma AA NiMH cells	24.99
98	Package of 39C/66/1315 for 269	54.99
98B	Pack of 92AA10/39C/66/1315 for 269	77.99
99	Pack of 29C/66/1315; 209/249B/259B	54.99
99B	Pack; 92AA10/29C/66/1315; 209/249B/259B	77.99
99C	Pack - 92AA10/1315; 209/249B/259B/269	34.99
731	RFI filter for SWR analyzer	89.99
1315	12vdc 500ma ps for SWR analyzers	14.99
270	Guardian Angel 400w PEP lightning protect	29.99
97	Gas tube plug for 270	9.99
281	ClearTone communications speaker	12.99
285W(CC)	Mini spkr/mic; Alinco credit card HTs	17.99
287	Mini spkr/mic; Kenwood D	9.99
288I	Headset/mic; Icom/ADI/Sta/RS/older Yae	24.99
288K	Headset/mic for Kenwood	24.99
288Y	Headset/mic; Ico Q7/Yae FT10/50/VX1	24.99
291K	Earphone for Kenwood spkr/mic D	2.99
292I	Earph/mic; Ico/older Yae/compatibles	17.99
292K	Earphone/mic for Kenwood HT Δ	9.99
292Y	Earphone/mic; Ico Q7/Yae FT10/50/VX1	17.99
293I	Rubber flex earloop earbud/mic; Icom	24.99
293K	Rubber flex earloop earbud/mic; Kenwood	24.99
293Y	Rubber flex earloop earbud/mic; Yaesu	24.99
295I	Mini spkr/mic; Icom & compatible HT	15.99
295K	Mini spkr/mic; Kenwood & compatible HT	15.99
295Y	Mini spkr/mic; Ico Q7/Yae FT10/50/VX1	15.99
296I	Spkr/mic w/vol control, PTT lock; Icom	19.99
297	Desk mic with flexible boom	69.99
5082	Open end - 8-pin mic cable for 297	9.99
5268	Open end - mod phone plug cbl; 297	9.99
5397I	Cable/8-pin for 297; Icom HF	15.99
5397K	Cable/8-pin for 297; Kenwood HF	15.99
5397Y	Cable/8-pin for 297; Yaesu HF	15.99
5397MX	Cable/modular for 297; Icom/Kenwood	15.99
5397MY	Cable/modular for 297; Yaesu	15.99
310	BNC HT antenna window mount clip	14.99
315	Universal Gripmatic HT mount holder D	14.99
323	Keep-it-up battery maintainer D	4.99
338S	5" tri-mag mount, SO-239 Δ	39.99
338T	5" tri-mag mount, ⅜-24 Δ	39.99
341M	17' antenna cable; NMO	19.99
341S	17' antenna cable; SO-239	19.99
382	Deluxe amplified communications spkr	39.99
384	Dlx amp spkr w/speech control knob	29.99
1306	6v 300ma adapter for 384 only	14.99
388	Cyber Ear 12db ear amplifier	29.99
392	Deluxe communication headphones	19.99
394	Boom mic/single headphone	74.99
396	Boom mic/headphones	79.99
1709	PTT operator foot switch; 394/396	21.99
5396I	Adapter; 394/396 with Ico Xcvr	15.99
5396K	Adapter; 394/396 with Ken Xcvr	15.99
5396Y	Adapter; 394/396 with Yae Xcvr	15.99
413	Basic Code Tutor Δ	14.99
414	Professional Morse Tutor w/LCD	189.99
417	Code Tutor with QSO	59.99
418	Code Tutor with LCD display	79.99
434	Deluxe Voice Memory Keyer	169.99
73	Remote control head w/cable for 434	29.99
461	Pocket size Morse code reader	79.99
462B	RTTY/ASCII/CW/AMTOR Rcvr multi-reader	169.99
5162	Receiver cable for 461/462B	4.99
550	Hand key	7.99
552	CW interface for 2m HT Δ	49.99
554	Deluxe CW practice oscillator	79.99
557	Code oscillator w/key	29.99
616	Speech intelligibility enhancer	159.99
1316	12vdc 1.5A adapter	19.99
281	ClearTone speaker (requires 2)	12.99
392	Deluxe communication headphones	19.99

MFJ - continued

AES Price

631	Trickle wall charger; NiMH/nicad AA	9.99
632	Rapid charger; NiMH/nicad AA/AAA	19.99
641-I2	Battery charger; Icom BP-131/132 Δ	29.99
10-BCI-2	Charger cup; Icom BP-131/132 Δ	4.99
10-BCI-3	Charger cup; Icom BP-173/180 Δ	2.99
10-BCY-2	Cgr cup;Yae FNB10/11/12/17/27 Δ	4.99
641-Y3	Battery charger;Yaesu FNB-31/33 Δ	24.99
10-BCY-3	Charger cup; Yae FNB-31/33 Δ	2.99
641-Y4	Batt cgr;Yaesu FNB-40/41/V47/49 Δ	29.99
10-BCY-4	Cgr cup;Yae FNB40/41/V47/49 Δ	4.99
662	Simplex pocket repeater	79.99
701	Toroid RFI filters pack of 4	14.99
704	1kw low-pass filter	49.99
711	High pass filter	24.99
713	2m HT intermod filter Δ	39.99
762	81db 170MHz BNC attenuator	69.99
801	Super compact field strength meter	19.99
802	Bipolar field strength meter	39.99
802R	Field strength remote meter	24.99
802X	Field strength/remote meter combo	59.99
805	RFI current detector meter	79.99
850	AC line voltage monitor	19.99
852	Power line noise current meter	89.99
854	HF RF current meter	89.99
886	1MHz - 3GHz Pocket frequency counter	109.99
912	W9INN remote balun	49.99
916	2m/440 duplexer	29.99
931	Artificial ground unit	89.99
1025	Noise canceling antenna	149.99
1026	Deluxe noise canceling unit w/antenna	169.99
1046	1.6-33MHz receiver passive preselector	89.99
1048	1.6-33MHz Xcvr passive preselector	109.99
1112	Multiple DC outlet	34.99
1116	Dlx multiple DC outlet	49.99
1117	High current multiple DC outlet	54.99
1118	Dlx high current multiple DC outlet	74.99
1213	Interface for JVFAX/HamComm	49.99
1266	C64 disk code tutor program D	.49
76	1266/67 interface brd; kyr/keyboard D	.29
1268	IBM PC memory keyer Δ	1.99
1269	IBM code tutor D	9.99
1281	IBM Easy-DX logging program D	9.99
1292	Video digitizer for IBM Δ	29.99
1680Y	Windows software package; Yaesu D	9.99
1682	Packet Windows software D	2.99
1683I	Rig Windows software for Icom D	6.99
1683K	Rig Windows software for Kenwood D	6.99
1683Y	Rig Windows software for Yaesu D	6.99
5383YB	Yaesu interface cbl, mini 6-pin DIN Δ	19.99
1700B	Combination ant/xmtr switch	79.99
1701	6-position coax switch	49.99
1702C	2-pos coax switch/lightning protect	24.99
1702CN	2-pos 1.1GHz N switch/lightning protect	34.99
1704	4-pos 500 MHz switch/lightning protect	64.99
1704N	4-position type N switch	74.99
4035MV	Dlx 30A adjustable ps, 35A surge	139.99
4125MV	MightyLite 22A 3.5 lb switch ps, 25A surge	99.99
4225MV	MightyLite 22A switching ps, 25A surge	139.99
4245MV	MightyLite 40A switching ps, 45A surge	189.99

MG Electronics (MGE)

HFS-1	10w mobile spkr, 3.5mm plug D	$ 9.99

MAGELLAN (MAG)

GPS-310	12 ch GPS receiver	$ 99.99
GPS-315	12 ch GPS receiver	149.99
GPS-320	12 ch GPS receiver	169.99
730275	External power cable w/cig adapter	17.99
730277	PC cable/cig adapt; GPS-315/320	39.99
00-09018-000	PC ext pwr cig cbl; 2000XL D	2.99
00-69007-000	Ext pwr/data module; 2000XL D	14.99
GPS ColorTRAK	12 ch color GPS/carry case D	239.99
GPS Tracker	12 ch GPS w/wrist strap D	169.99
00-19044-000	Low profile external ant Δ	59.99

Order Toll Free at 4 Locations Nation-Wide 1-800-558-0411 WI
Browse Our Store On-Line at www.aesham.com

Magellan - continued

		AES Price
00-19060-000	Power/data cable .....Δ	16.99
00-19067-000	PC cable w/cig adapter ...Δ	24.99
MAP-330	12 ch GPS receiver w/8mb base map	249.99
730275	External power cable w/cig adapter	17.99
730277	PC cable/cig adaper	39.99
980611	MapSend Topo CD-ROM	99.99
Meridian GPS	GPS with 2MB base map	219.99
Meridian Gold	GPS with 16MB base map	299.99
Meridian Platinum	GPS/16MB/compass/barometric	349.99
Meridian XL	GPS/plotter/detachable ant/case D	149.99

MAHA (MAH)

9V	8.4v 170ma 9v size NiMH batt cell .....ea	$ 8.99
AAA-T	1.2v 650ma AAA size NiMH batt cell ea	2.99
AA-FB	1.2v 1400ma AA NiMH batt cell w/tabs ea	2.99
AA-155	1.2v 1550ma AA size NiMH batt cell D,ea	2.99
AA-160	1.2v 1600ma AA size NiMH batt cell ea	3.99
C-380	1.2v 3800ma C size NiMH batt cell D,ea	9.99
D-800	1.2v 8000ma D size NiMH batt cell D,ea	14.99
MH-2A4	Slow charger for 4 max AA NiMH ...D	3.99
MH-C124S	Reg cgr; 1-4 AA/AAA NiMH/NiCD .	9.99
MH-C204F	Quik cgr/condi; 2/4 AA/AAA NiMH/NiCD ...	24.99
MHS-DC-124	Cig adapter; MH-C124S/C204F	5.99
MH-BP-7	1000ma 13.2v Icom nickel hydride	69.99
MH-BP-8	1200ma 8.4v Icom nickel hydride ..	59.99
MH-BP-8H	1800ma 8.4v Icom nickel hydride	69.99
MH-BP-83	1300ma 7.2v Icom nickel hydride	49.99
MH-BP-132B	1300ma 12v Ico blk nick hyd/mic	59.99
MH-BP-132G	1300ma 12v Ico gray nick hyd/mic	59.99
MH-BP-173	650ma 9.6v Icom nickel hydride	69.99
MH-BP-180	1000ma 7.2v Icom nickel hydride .	49.99
MH-BP-196M	1350ma 9.6v Icom nick hydride	49.99
MH-BP-199	700ma 6v Icom nick hydride/clip .	55.99
MH-BP-200	680ma 9.6v Icom nick hydride/clip	59.99
MH-CNB-152	1000ma 12v Sta nickel hydride	59.99
MH-CNB-153	1300ma 7.2v Sta nickel hydride	49.99
MH-FNB-12	1000ma 12v Yaesu nickel hydride	59.99
MH-FNB-17	1000ma 7.2v Yaesu nickel hydride	49.99
MH-FNB-27	1000ma 12v Yaesu nickel hydride	59.99
MH-FNB-31	650ma 4.8v Yaesu nickel hydride	49.99
MH-FNB-38	650ma 9.6v Yaesu nickel hydride	59.99
MH-FNB-40H	650ma 7.2v Yae nick hyd/ spg clip	59.99
MH-FNB-41	1000ma 9.6v Yae nick hyd/spg clip	55.99
MH-FNB-V47	1800ma 7.2v Yae nick hyd/spg clip	69.99
MH-FNB-V57	1500ma 7.2v Yaesu nickel hydride	49.99
MH-FNB-72	1700ma 9.6v Yaesu nickel hydride	59.99
V47 Belt Clip	Spring loaded belt clip for Yae Δ	4.99
MH-PB-8	1300ma 12v Kenwood nickel hydride	62.99
MH-PB-17	1300ma 12v Kenwood nickel hydride	69.99
MH-PB-18	1300ma 7.2v Ken nick hyd; wall cgr only	49.99
MH-PB-32	1000ma 6v Kenwood nickel hydride	47.99
MH-PB-34	1000ma 9.6v Kenwood nickel hydride	57.99
MH-PB-39	1050 ma 9.6v Ken nickel hyd/clip ...	59.99
MH-PB-39H	1800ma 6v Ken nickel hyd/clip	59.99
MH-C777	Univ cgr/conditioner/cig cord; nicad/nimh	49.99
MHS-CW4	Clip-leads for external charging	3.99
MH-C777 Plus	Univ cgr/analy/cig cord; lith/nicd/nimh	89.99
MH-C888	Univ drop-in rapid cgr/cond; nicad/nimh	59.99
MHS-C800U	External charger pin shell	14.99
MHS-C801	Cup; T2/W32/TH22/79/FT10/50	7.99
MHS-C802	Cup; IC02AT/TH78/FT470/530 ..	7.99
MHS-C803	Cup; Kenwood TH-D7A/G71A	7.99
MHS-C804	Cup; Icom IC-T8A/T81A	7.99
MHS-C805	Cup; Yaesu FT-11/41/51R	7.99
MHS-C806	Cup; Ali 195/580/F1/G5/V5/etc	7.99
MHS-DC-777	Cig lighter cord	5.99
MH-101-I1	Cgr;Ico157/160/174/131/2/Mah 132B/G D	24.99
MH-101-Y1	Cgr;Yae 10/11/12/17/25/27/Mah 12/27 .D	24.99
MH-101-Y2	Cgr;Yae FNB31/38/Mah MHFNB38 D	24.99
MH-800K	500mw spkr/mic w/clip; Kenwood .	19.99
MH-800S	500mw spkr/mic/clip; Ali/Ico/Sta/Yae	19.99
MH-800Y	500mw spkr/mic; Yae FT50/VX1R ..	24.99
MH-A101	5/35w 2m FM amplifier	69.99

Maha - continued

		AES Price
MH-A102	5/35w 2m FM/SSB amp/preamp	89.99
MH-A103	5/50w 2m FM/SSB amp/preamp	119.99
MH-A104	5/100w 2m FM/SSB amp/preamp ..	229.99
MH-A201	5/45w 2m//5/35w 440 FM amp	159.99
MH-A301	5/50w 2m HT dock boost amp/pre .	115.99
MH-A302	5/45//5/35w 2m/440 HT dock boost	165.99
MHS-I1	Ico 2G/02/2/32 adapter; A301/302	9.99
MHS-I2	Ico 2SAT/W2 adapter; A301/302 .Δ	2.99
MHS-I3	Ico 2GXAT/W21AT adapt; A301/302	9.99
MHS-I4	Ico W32/31/T7/22 adapt; A301/302	11.99
MHS-I5	Ico T8A/T81A adapter; A301/302 ...	11.99
MHS-K1	Ken 25/26/75/77 adapt; A301/302	9.99
MHS-K2	Ken TH22/79 adapter; A301/302 ..	9.99
MHS-K3	Ken G71A/D7A adapt; A301/302 ..	11.99
MHS-S1	ADI/Standard adapter; A301/302 .	9.99
MHS-Y1	Yae 23/411E/470 adapt; A301/302	9.99
MHS-Y2	Yae 26/415/530 adapt; A301/302	9.99
MHS-Y3	Yae FT11/41/51 adapt; A301/302	11.99
MHS-Y4	Yae FT10/40/50 adapt; A301/302	11.99
MH-VOX-K	Deluxe VOX spkr/mic; Kenwood .Δ	9.99
MH-VOX-S	Dlx VOX spkr/mic; Ali/Ico/Sta/Yae Δ	9.99

MALDOL (MAL)

AH-14	20m telescoping ant w/BNC; FT-817...	$ 45.99
AH-28	10m telescoping ant w/BNC; FT-817...	45.99
AH-C7	40m loading coil only w/BNC; FT-817	33.99
AH-C14	20m loading coil only w/BNC; FT-817	33.99
AH-C21	15m loading coil only w/BNC; FT-817	33.99
AH-C28	10m loading coil only w/BNC; FT-817	33.99
AH-R	Telescoping whip for AH-C7/14/21/28	17.99
AH-510R	6/2m/440 37" BNC tele whip; FT-817/HT	59.99
AH-510R/SMA	6/2m/440 37" SMA tele whip	59.99
AS-20	2m/440 8.5" superflex SMA antenna...	29.99
AS-25	2m/440 1" SMA antenna	19.99
AS-30	2m/440 15" 0/2.15db superflex SMA ant	29.99
EM-B80	Small trunk/hatch/van door lip mt ..	25.99
EX-104B	2m/440 black 0/2.15db 15" mob ...	41.99
EX-104BNMO	2m/440 blk 0/2.15db 15" NMO	41.99
EX-107RB	2m/440 black 2.6/4.9db 29" mob	52.99
EX-107RBNMO	2m/440 blk 2.6/4.9db 29" NMO	52.99
FVS-50	Dlx 2-step 16' 9" cable w/UHF connects	39.99
MH-209	2m/440 3" BNC duck	23.99
MH-209SMA	2m/440 3" SMA duck	23.99
MH-510	6m/2m/440 0/0/3.2db 20.75" SMA duck	37.99
MK-30H	Motorized tnk lip/hatch/van door mt	104.99
MSG-1000C	2m/440 2.15/5.5db 39" mobile .	62.99
MSG-1100C	2m/440 3.5/6db 42" mobile ant	72.99
PR-212D	2m/440 6/8.5db 85" mobile ant	99.99
PR-212DNMO	2m/440 6/8.5db 85" NMO mob	99.99
PRM-T	Large trunk/hatch/van door lip mt	29.99
SHG-140B	2m 4.1db 56" mobile antenna	54.99
SHG-140BNMO	2m 4.1db 56" NMO mob ant .	54.99
SHG-1500B	2m/440 blk 4.5/7.5db 59" mob .	74.99
SHG-1500BNMO	2m/440 blk 4.5/7.5db 59" NMO	74.99

MAXON (MAX)

WTA-9F	Ear speaker for FRS-114 .....Δ	$ .49
MX-49FX	5 ch 49 MHz ear mic Xcvr	49.99
MX-49HX	5 ch 49 MHz boom mic/headset Xcvr ..	49.99
MX-49SX	49 MHz boom mic/headset Xcvr	29.99
WX-70	Weather monitor/alert w/ps .....D	29.99

MEADE (MEA)

0605-04-01	ETX-60AT Astro telescope w/tripod	$299.99
0705-04-01	ETX-70AT Astro telescope w/tripod	299.99
07025	#882 Extra std tripod .special order	99.99
07220	#933 45° 1.25" erecting prism	74.99
07279	#670 dew shield	22.99
3514-03-04	ETX-90EC Astro telescope	495.99
0515-03-01	ETX-125EC Astro telescope	895.99
07436	#497 Autostar controller; ETX-90/125EC	99.99
07021	#883 Deluxe field tripod	199.99
20060	DS-60 60mm refractor telescope ....†	99.99
20061	DS-60EC 60mm refractor telescope .†	179.99
20071	DS-70EC 70mm refractor telescope .†	199.99

Meade - continued

		AES Price
20091	DS-90EC 90mm refractor telescope .†	399.99
20114	DS-114EC 114mm reflector telescope †	299.99
07217	#928 45° 1.25" erecting prism; DS60/70/90	59.99
494	#494 Autostar controller; DS-EC-series †	49.99
07437	#495 Autostar controller; DS-EC-series	99.99
07170-02	1.25" 6.4mm super Plossl lens .	89.99
07173-02	1.25" 15mm super Plossl lens ...	89.99
07273	#126 1.25" 2x short-focus Barlow lens	59.99

MIDLAND (MID)

23-505	1.5-150MHz dual meter SWR/power .	$ 19.99
74-109	Weather/hazard alert radio w/ps ....D	19.99
74-200	SAME weather/hazard alert radio/ps	59.99
74-210	FM/SAME weather/hazard alert radio/ps	79.99
22-410	Speaker/mic for 75-510XLB .....D	14.99
22-430	Throat mic/ear/PTT box; 75-510XLB .... D	19.99

MIRAGE (MIR)

A-1015G	50-52 FM/SSB 10/150w amp/preamp	$349.99
B-34	2m FM 2/35w amplifier	69.99
B-34G	2m FM/SSB 3.5/35w amp/preamp	89.99
B-215G	2m FM/SSB 2/150w amp/preamp	339.99
B-320G	2m FM/SSB 50/200w amp/preamp ..	399.99
B-1016G	2m FM/SSB 10/160w amp/preamp	339.99
B-2518G	2m FM/SSB 25/160w amp/preamp	269.99
B-2530G	2m FM/SSB 25/300w amp/preamp	619.99
B-5018G	2m FM/SSB 50/160w amp/preamp	269.99
B-5030G	2m FM/SSB 50/300w amp/preamp ..	599.99
BD-35	2m/440 4/45//4/35w HT amp	149.99
BD-38/BD-38G	2m/440 4/80w HT amp/preamp	279.99
B-24G	5/50w 2m HT dock boost amp/pre	114.99
BD-25	5/45//5/35w 2m/440 HT dock boost	164.99
MI-1	Ico 2G/02/2/32 adapter; B24G/BD25	9.99
MI-2	Ico 2SAT/W2 adapter; B24G/BD25	9.99
MI-3	Ico 2GXAT/W21AT adapt; B24G/BD25	9.99
MI-4	Ico W32/31/T7/22 adapt; B24G/BD25	9.99
MK-1	Ken 25/26/75/77 adapt; B24G/BD25	9.99
MK-2	Ken 22/79 adapter; B24G/BD25	9.99
MS-1	ADI/Standard adapter; B24G/BD25 ..	9.99
MY-1	Yae 23/411E/470 adapt; B24G/BD25 .	9.99
MY-2	Yae 26/415/530 adapt; B24G/BD25 .	9.99
MY-3	Yae FT11/41/51 adapt; B24G/BD25 ..	9.99
MY-4	Yae FT10/40/50 adapt; B24G/BD25 ..	9.99
C-22G	220 FM/SSB 2/20w amp/preamp	154.99
C-211G	220 FM/SSB 2/110w amp/preamp	299.99
C-1012G	220 FM/SSB 10/120w amp/preamp	299.99
C-1022G	220 FM/SSB 10/220w amp/preamp	589.99
C-2512G	220 FM/SSB 25/120w amp/preamp	289.99
C-2522G	220 FM/SSB 25/200w amp/preamp Δ	519.99
C-5012G	220 FM/SSB 50/120w amp/preamp Δ	259.99
C-5022G	220 FM/SSB 50/200w amp/preamp Δ	499.99
D-15N	430 FM/SSB/ATV 2/15w type N amp ...	169.99
D-26N	440 FM/SSB 2/60w type N amplifier ..	244.99
D-1010N	440 FM/SSB 10/100w type N amp .	354.99
D-3010N	440 FM/SSB 30/100w type N amp .	329.99
D-1010-ATVN	430 ATV 10/100w type N amp .	369.99
RC-1*	Remote control head w/18' cable	45.99
	*Not for B-23/C-22/D-26	
RC-2	Rem ctl head/ cbl; B-2518G/B-5018G .	45.99

The following Repeater Amplifiers Special Order. Specify SO-239 or type N connectors

A-1015NR	6m FM 2/80w type N amplifier	$539.99
A-1015R	6m FM 2/80w SO-239 amplifier	529.99
B-215NR	2m FM 1/110w type N amplifier	524.99
B-215R	2m FM 1/110w SO-239 amplifier	504.99
B-1016NR	2m FM 2/120w type N amplifier ..	559.99
B-1016R	2m FM 2/120w SO-239 amplifier ...	539.99
B-2518NR	2m FM 12/120w type N amplifier	519.99
B-2518R	2m FM 12/120w SO-239 amplifier .	499.99
C-211NR	220 FM .5/80w type N amplifier	584.99
C-211R	220 FM .5/80w SO-239 amplifier	564.99
C-1012NR	220 FM 5/90w type N amplifier ...	584.99
C-1012R	220 FM 5/90w SO-239 amplifier	564.99

Mirage - continued

AES Price

C-2512NR 220 FM 15/90w type N amplifier . 559.99
C-2512R 220 FM 15/90w SO-239 amplifier .. 539.99
D-1010NR 440 FM 4/80w type N amplifier ... 589.99
D-3010NR 440 FM 12/80w type N amplifier . 564.99
D-1010-ATVN-R 430 ATV 4/80w type N amp . 589.99

PREAMPS

KP-1/10M 10m in shack preamp $129.99
KP-1/6M 6m in shack preamp 129.99
KP-1/2M 2m in shack preamp 129.99
KP-1/220 220 in shack preamp 129.99
KP-1/440 440 in shack preamp 129.99
KP-2/10M 10m mast mount preamp .....Δ 149.99
KP-2/6M 6m mast mount preamp 179.99
KP-2/2M 2m mast mount preamp 179.99
KP-2/220 220 mast mount preamp 179.99
KP-2/440 440 mast mount preamp 179.99

WATTMETERS

MP-1 160-10m 25/200/2kw PEP wattmeter . $219.99
MP-2 6 & 2m 50/500/1.5kw PEP wattmeter . 219.99
MP-3 420-450 5/50/150w PEP wattmeter 249.99

Monitor America (MON)

Monitor America Scanner frequency book ..D $ 19.95

MOTOROLA (MOT)

53543* Camouflage TalkAbout 250 FRS .....D $ 69.99
*$15 consumer rebate from Motorola thru 12/31/01
53590* Blue TalkAbout 250 FRS .....D 59.99
*$15 consumer rebate from Motorola thru 12/31/01
53592* Black TalkAbout 250 FRS .....D 59.99
*$15 consumer rebate from Motorola thru 12/31/01
50226 Headset w/microphone 14.99
53770* Dark slate FR50 FRS .....D 34.99
*$10 consumer rebate from Motorola thru 12/31/01
53834 Rosewood T5200 Alkaline FRS 39.99
56360 Black T6220 Alkaline FRS 59.99
53725 Headset w/microphone 14.99
53544* 2w grey TalkAbout Distance GMRS ... 189.99
*$30 consumer rebate & case from Motorola thru 12/31/01
53547* 2w grey TalkAbout Distance DPS GMRS 199.99
*$40 consumer rebate & case from Motorola thru 12/31/01
50226 Headset w/microphone 14.99

NCG (NCG)

Power Pocket 12v 2AH lead acid belt batt/cgr $ 66.99
RP-150 20A variable ps/lighted meters/fan D 79.99
RP-300 30A variable ps/lighted meters/fan D 119.99

NEW WAVE (NEW)

Adventurer 12' extended Portaple alum mast ... $109.99
Traveler 19' extended Portaple alum mast 124.99
Rover 26' extended Portaple alum mast 149.99
Expeditioner 33' extended Portaple alum mast ... 174.99
Explorer 40' extended Portaple alum mast .. 199.99
Big Foot Welded, unpainted park-on mt 119.99
Snap-on Mount Clamp on mt; ant-mast ... 19.99

Night Owl Optics (NOO)

NOCC-3 3.1x42 night vision scope w/illuminator $199.99
NOCA-42 Camera adapter 49.99
NOLD-20 Lens doubler 49.99

NORCOMM (NOR)

NC-101 Tunable CTCSS encoder ..... $ 21.99
NC-104 Programmable CTCSS encoder 26.99
NC-106 Prog CTCSS encoder/decoder 62.99
NC-401 Sub-miniature DTMF decoder 62.99

NYE VIKING (NYE)

ANTENNA TUNERS AND ACCESSORIES

MBV-A 3kw tuner with ant switch & meters . $879.99
020-001 2kw low-pass filter 56.99

MASTER KEY

330-001 Black enamel base w/cable, plug ... $ 72.99
330-C Chrome plated Master Key/cable/plug 139.99

Nye - continued

AES Price

HEAVY DUTY SPEED-X KEYS WITH NAVY KNOBS

320-001 No shorting switch ..... $ 39.99
320-003 As above, w/shorting switch 51.99
322-001 Brass hardware, no switch 35.99
322-003 As above, w/shorting switch 44.99

STANDARD SPEED-X KEYS

310-001 Black, no shorting switch ..... $ 40.99
310-003 As above, w/shorting switch .....Δ 26.99
312-001 Brass arm, no shorting switch 32.99

OAK BAY (OAK)

CA-232HH Handheld packet cable .....D $ 2.99
CA-232U Universal packet cable .....D 2.99

Oregon Scientific (ORE)

BA-812E The weather clock .....D $ 24.99
EMR-812A Wireless thermometer 39.99
PE-319 Pedometer with personal security 29.99
RGR-122 Wireless rain gauge w/LCD console 69.99
RM-116E Exactset radio controlled clock 39.99
WM-918 Dlx weather station w/rain gauge ... 199.99
SW-918 PC software/cable for WM-918 ..D 29.99
WMR-968 Dlx wireless WX stn w/rain gauge . 329.99
WR-102 Port WX/hazard radio/SAME alert 49.99
WR-196T AM/FM/SAME WX alert clock radio . 59.99
WR-3300 Weather/hazard radio/alert w/ps .D 19.99
WR-8000 Portable WX/hazard radio/alert ...D 29.99

OUTBACKER (OUT)

OB-8 300w PEP 6' 75-10m 8-band mobile ant $279.99
OB-8HP 500w PEP 6' 75-10m 8-band mob ant 299.99
OB-S8 8-band 300w PEP split ant/storage bag 299.99
OB-8TRI 3pc 300w PEP 6' 8band port ant/bag 329.99
Joey 20w 80-2m antenna w/counterpoise 249.99
(ALP) MicroMount Tripod system for Joey ... 49.99
OB-M 300w PEP 6' 75/40/20/17/10m/HF marine 429.99
Perth 150w PEP 7.5' 75-10m mobile ant 289.99
Perth Plus 150w PEP 6' 75-10m+6m/2m mob ant 299.99
Stealth Plus 100w PEP 4' 75-10m+6/2m ant 269.99
Outreach 300w PEP 12' 160-10m antenna ... 399.99
Outreach 500 600w PEP 12' 80-6m antenna 439.99
Outrunner 150w PEP 9' 160-10m antenna D 329.99
(ALP) Outpost Base tripod mtg sys for mob ant 199.99
OB-SB ⅜-24 spring and ½" hole base 99.99
Diamond K-400-3/8C ⅜-24 trunk mt, 6' coax 69.99
Diamond C-110 10' ext cable; K-400-3/8C 14.99

PACCOMM (PAC)

APRS port switch ..... $ 29.99
HandiPacket Small TNC for handhelds 229.99
PicoPacket TNC, 128K RAM 159.99
PicoPacket dual serial port TNC, 128K RAM ... 209.99
Spirit-2 Standard high performance controller 249.99
Tiny-2 Mk-2 Multi-purpose TNC 159.99

Palomar Engineers (PAL)

MSB-3 Magnetic switch receive balun .....D $ 29.99
PT-340 Tuner-Tuner (use with ant tuner) 99.99
RFI-4 RF interference kit 25.99
SMB-5 SmartBridge prog; AT computers .....D .49
VLF-A VLF converter; 10-500 KHz to 80m 99.99
VLF-S VLF conv; 10-500 KHz to 4-4.5 MHz 99.99

PAR (PAR)

144-AUX 2m 4 effective el add-on, 7 db; 50-EL3 Δ $ 19.99
OA-28 10m horizontal omni antenna 74.99
OA-50 6m horizontal omni antenna 63.99
SK-50 Stacking harness for OA-50 ..... 36.99
OA-144 2m horizontal omni antenna 54.99
SK-144 Stacking harness for OA-144 ..... 34.99
OA-222 220 horizontal omni antenna 54.99
SK-222 Stacking harness for OA-222 .....Δ 29.99
OA-432 430 horizontal omni antenna 54.99
SK-432 Type N stacking harness; OA-432 .. 54.99
UHFDN450 440 dual band notch filter 62.99

Par - continued

AES Price

VHFDN152 2m dual band notch filter 62.99
VHFDN152HT 2m dual band HT notch filter .. 68.99
VHFTN152-158 2m dual band+pager notch filt 82.99
UHF-12 12" RG58/silver/gold/tef PL259s .. 9.99

PENETROX (PEN)

Penetrox A 4 oz tube for antennas ..... $ 12.99

PIPO TOUCH-TONE PADS (PIP)

PK-1 12-digit pad ..... $ 71.99
PK-1K 12-digit pad w/delay relay 78.99
PK-1M 12-digit pad for surface mtg .....Δ 29.99
PK-2 16-digit pad .....D 59.99
PK-2K 16-digit pad w/delay relay 83.99
PK-2M 16-digit pad for surface mtg 76.99

POLICE CALL (POL)

Vol 3/4 2002 IL/IN/KY/MI/OH/WI book/48 state CD $ 19.99
Vol 5/8 2002 AZ/CO/IA/NV/others book/48 state CD 19.99

POLYPHASER (PLY)

LIGHTNING PROTECTION

IS-50NX-C2 125-1000 375/125/50w N flange $ 61.99
IS-50UX-C0 1.5-400 2kw/375/125w flange mt 61.99
IS-50UX-C1 50-700MHz 375/125w flange mt 61.99
IS-B50LN-C2 125-1000 375/125/50w N bulkhead 64.99
IS-B50LU-C0 1.5-400 2kw/375/125w bulkhead 64.99
IS-B50LU-C1 50-700 375/125w bulkhead mt 64.99
IS-IE50LU-C0 1.5-400 dlx 2kw/375/125w bulk 129.99
IS-IE50LU-C1 50-500 dlx 375/125w bulkhead Δ 79.99
IS-IE50LN-C1 50-700 dlx 375/125w N bulkhead 117.99
BF Adapter Bulkhead to flange mt adapter . 9.99
FB Adapter Flange to bulkhead mt adapter . 11.99
IS-PLDO-120-15A 120v 15A power protector 172.99
IS-PLDO-120-20A 120v 20A power protector 215.99
IS-RCT 8-wire rotor control protector 54.99
J-1 ½" to 1⅓" bronze transition clamp 8.99
J-2 1½" to 2¼" bronze transition clamp .. 12.99
IS-SPTL Single phone line protector 57.99
CS112-25 25' 1½" copper strap 25.99
CS112-50 50' 1½" copper strap 51.99
CS112-75 75' 1½" copper strap 75.99
CS112-100 100' 1½" copper strap 99.99
CS3-25 25' 3" copper strap 51.99
CS3-50 50' 3" copper strap 99.99
CS3-75 75' 3" copper strap 149.99
CS3-100 100' 3" copper strap 197.99
CS6-25 25' 6" copper strap .....Δ 69.99
CS6-50 50' 6" copper strap .....Δ 139.99
CS6-75 75' 6" copper strap .....Δ 209.99
CU-SPGP Copper single point ground panel . 69.99
TK-2 1½" strap to Rohn twr corrosion free clamp 5.99
TK-3 1½" strap-2¼" to 3¾" mast corr free clamp 8.99
1C-112S #6-#1 wire to 1½" strap clamp bond 10.99
58R-112S 1½" strap to ⅝" gnd rod clamp bond 12.99
MSC-3 Junc; 2+ 1½" or 3" strap clamp bond 10.99
UNI-KIT 2CT Gnd kit; coax to alum/tin/galv .. 29.99
UNI-KIT 2TC Gnd kit; galv twr leg to copper . 32.99
UNI-KIT 2CC Ground kit; coax to copper 28.99
CCK Copper cleaning kit; 4 oz can, brush 27.99
GLEP Lightning and EMP Protection book 20.00

The POUCH (POU)

1R Pouch for Yaesu VX-1R ..... $ 12.99
2-411 Pouch for Yaesu FT-411 Mk II/12 ..... 17.99
5R Pouch for Yaesu VR-120/VX-5R 14.99
10R/10-50 Pouch; Yaesu FT-10/40/50RD 14.99
23-33 Pouch for Yaesu FT-23/33R 17.99
32-5T Pouch; Alinco DJ-G5T/Icom IC-W32A ... 14.99
95T Pouch for Alinco DJ-195/196T 14.99
110-150 Pouch for Yaesu VX-110/150 ..... 17.99
508 Pouch; Ico Q7/T82A/Sta108/508/Yae VR500 12.99
510 Pouch; Ali DJ-X2T; Ico T8A/T81A/Sta 510A 12.99
AF-738 Pouch for Alinco DJ-C1T/C4T/C5T 12.99

Pouch - continued

AES Price

ANALYPOUCH Pouch for MFJ analyzer 24.99
DTX Pouch for Kenwood TH-D7A(G) 17.99
G-71 Pouch for Kenwood TH-G71A 17.99
P-4V Pouch for UBZ-LF14 FRS .....Δ 6.99
P-5 Pouch; DJS11T/S46/ICT7H/T22A/FT11R .. 14.99
Packer Pouch Pouch for Yaesu FT-817 ..... 24.99
PR Pouch for ADI PR-52/222 ..... 14.99
RC-3 Pouch for Icom R-3/R-10 ..... 17.99
S-1 Pouch; AT-201HP/AT-600HP/TH-79A 17.99
S-2 Pouch; TH-79AH/TH-235A/VC-H1 ..... 17.99
S-3 Short 3 Pouch for HT .....D 7.99
Slim Pouch; Alinco DJ-190/191T/Sta C-288A Δ 7.99
SS Pouch for TH-22AT/TH-28A/FT-51R&HP 17.99
T-2A Pouch; AT-201/600/Chr AH-50/IC-T2H .. 17.99
V-5T Pouch for Alinco DJ-G5TH/V5T 14.99
VX-3T Pouch; Ali DJ-180/280/480T/Ico IC-V8 14.99
XF-1 Pouch for Yaesu VXF-1/VXF-10 FRS ....D 6.99
Chest B/S Chestpouch ser B w/S pocket 29.99

PREMIER (PRE)

AL-800 2m/440 34" BNC rubber duck ant .... $ 29.99
RD-2 2m/440 2" BNC duck 14.99
RD-2SMA 2m/440 2" SMA duck 15.99
RD-8 2m/440/900 6.5" BNC duck 14.99
RD-9 2m/440/900 7" BNC duck 18.99
RD-9SMA 2m/440/900 7" SMA duck 20.99
RD-78 2m/440/900 15" BNC whip 19.99
RD-98 2m/440 17" BNC whip 24.99
RD-98SMA 2m/440 17" SMA whip 27.99
MC-2 Super suction & mag mt; NMO/UHF ..D 24.99
SPM-100 Spkr/mic; ADI/Alinco/Icom/Yaesu ... 21.99
SPM-100L Spkr/mic/L plug; Icom/Yaesu .....D 12.99
SPM-101 Spkr/mic for Kenwood 21.99
SPM-102 Spkr/mic; Yaesu FT-50R/VX-1R/5R 21.99
SPM-200 Lapel mic/earph; ADI/Ali/Ico/Yae .D 9.99
SPM-200L Lapel mic/earph/L; Icom/Yaesu .D 9.99
SPM-200EL Lapel mic/earhook/L; Ico/Yae ...D 12.99
SPM-201 Lapel mic/earphone for Kenwood D 10.99
SPM-201E Lapel mic/earhook for Kenwood .D 13.99
SPM-202 Lapel/mic/earph; FT-50/VX1/5R ...D 11.99
SPM-202E Lapel mic/hook; FT-50/VX1/5R ..D 14.99
SPM-301 Spkr/mic/PTT lock/volume; Ken ...Δ 9.99
SPM-400 Boom/mic; ADI/Alinco/Icom/Yaesu D 25.99
SPM-400A Boom/mic; ADI/Alinco/Icom/Yaesu 34.99
SPM-400L Boom/mic/L; Icom/Yaesu .....D 15.99
SPM-401 Boom/mic for Kenwood .....D 16.99
PTT-1 Rem PTT control; SPM-400 series ..D 4.99
SPM-400LPT Boom/mic/L/PTT-1;Icom/Yaesu ...D 18.99
SPM-401PT Boom/mic/PTT-1 for Kenwood ..D 19.99
SPM-402 Boom mic; Yae FT-50R/VX-1R/5R D 29.99
SPM-402A Boom mic; Yae FT-50R/VX-1R/5R 34.99
SPM-500 Throat/mic/earph; ADI/Ali/Ico/Yae .. 19.99
SPM-501 Throat/mic/earphone for Kenwood Δ 19.99
SPM-700 Palm mic/earph; ADI/Ali/Ico/Yae .Δ 15.99
SPM-701 Palm mic/earphone for Kenwood Δ 15.99
SPM-702 Palm mic w/earph; FT50/VX1/5R Δ 15.99
EH-1 Deluxe earphone w/earhook .....Δ 8.99
EH-1K Deluxe earphone/earhook; Kenwood .Δ 6.99
MMC-100 Sun visor mobile mic system .....Δ 39.99
PCA-IHF Cable/8-pin; Icom HF .....Δ 9.99
PCA-IVHF Cable/modular; Icom VHF .....Δ 9.99
PCA-KHF Cable/8-pin; Alico/Kenwood HF Δ 9.99
PCA-YHF Cable/8-pin; Yaesu HF .....Δ 9.99
PCA-YVHF Cable/modular; Yaesu VHF ....Δ 9.99
PCA-Y100 Cable; Yaesu FT90/100/2600 Δ 9.99

PRO AM by VALOR (VAL)

VHF/UHF ANTENNAS ONLY (No Mounts)

MO144-440 2m/440 antenna only ..... $ 21.99
PAQA 136-515 MHz ¼ wave antenna only 8.99
PHB-144 2m ⅝ wave 3 db antenna only 31.99

MOUNTS ONLY FOR ABOVE ANTENNAS

PAM Low profile magnet mount w/coax ..... $ 24.99

Pro Am - continued

AES Price

PAMB Black low profile mag mount w/coax .. 24.99
PAN38 ⅜-24 antenna to NMO mt adapter 14.99
PAS ¾" surface mount w/coax 19.99
PASMO ¾" surface mt only (no coax) 7.99
PAS38 ⅜" surface mount w/coax 19.99
PAS38MO ⅜" surface mt only (no coax) .....D 6.99
PAT-2 No hole trunk mount w/coax 19.99
PAT-2B Black no hole trunk mount w/coax 19.99
PAT-3 Swivel NMO-style trunk mt w/coax ...D 19.99

OTHER VHF/UHF ANTENNAS & MOUNTS

77BNC 2m/440 12" 0/2.1db BNC duck .....D $ 14.99
220BNC 220 10" ¼ wave duck w/BNC .....D 6.99
BNC-SC-RS Suction cup extension; ducks 22.99
WMSL-BNC Window clip for rubber ducks D 19.99
100ADN SO-239 horizontal mirror mt 10.99
101ADN HD alum mirror mt w/SO-239 ..... 10.99
105AD Hvy duty ⅜" mount assembly 6.99
105HD Heavy duty mount assembly 3.99
301 4" low profile ⅜-24 magnet mt w/coax .. 25.99
401 5" low profile ⅜-24 magnet mt w/coax .. 19.99
DAK Mt for 2 vert ants or horizontal dipole ... 13.99
GM-100AD SS GM ⅜-24 mirror mt w/SO-239 9.99
GM-144 2m 2.5db on glass antenna 29.99
GM-270 2m/440 2.6/6.3db on glass antenna 59.99
TGMKD On glass replacement mtg kit 8.99
MM-3401 Maxi-mag mt ⅜-24 kit (3-5" mags) 59.99
MM-3401B Blk maxi-mag mt ⅜-24 kit (3-5" mags) 59.99
SS-100MOT 3-way NMO mirror mt w/coax 23.99
CX-144 2m ⅝ wave 3db ⅜-24 whip 17.99
MM-270B 2m/440 mini mag mt ant w/BNC . 19.99
PA-440M 440 22" 4db mag mt ant .....D 6.99
PM-144-440BN 2m/440 BNC mag mt ant 33.99
TGS 30-1200MHz on-glass scanner ant 39.99
VAA-002B 144-450 black ¼ wv mag mt ant . 23.99
VAA-002BBN 144-450 black ¼ wv BNC mag ant 27.99
120 Sawtooth hump mt for mobile radios 7.99
D-270 2m/440 100w duplexer 39.99

MOBILE HF ANTENNAS (No Mounts)

AB-5 75/40/20/15/10m antenna $119.99
PHF-160 160m 8' ⅜-24 whip 97.99
PHF-75 75m 8' ⅜-24 whip (4' coil, 4' whip) . 29.99
PHF-40 40m 8' ⅜-24 whip (4' coil, 4' whip) . 23.99
PHF-30 30m 8' ⅜-24 whip (4' coil, 4' whip) . 23.99
PHF-20 20m 8' ⅜-24 whip (4' coil, 4' whip) . 23.99
PHF-17 17m 8' ⅜-24 whip (4' coil, 4' whip) . 23.99
PHF-15 15m 8' ⅜-24 whip (4' coil, 4' whip) . 23.99
PHF-12 12m 8' ⅜-24 whip (4' coil, 4' whip) . 23.99
PHF-10 10m 8' ⅜-24 whip (4' coil, 4' whip) . 23.99
PHF-6 6m 58" ⅜-24 whip 23.99
103S Quick disconnect/5 twist lock connectors 24.99

QRZ (WAL)

Ham QRZ US & international calls plus programs $ 29.99

QSL Card Holders (ART)

QSL Card Holders, pack of 3, 20 cards/holder $ 12.99

RF APPLICATIONS (RFA)

Match Alert VSWR monitor/alarm .....D $ 79.99
P-1500-P Power supply for P-1500 .....D 4.99
P-3000-P Power supply for P-3000, etc. ....D 4.99
VFD-VHF 50-225Mhz 300w dig power/SWR D 169.99

RF CONCEPTS (RFC)

2-23 2m FM/SSB 2/30w amp/preamp .....D $ 59.99
2/70 2m/440 FM 3/30//5/20w HT amp .....D 99.99

RF INQUIRY (RFI)

CF250E-UHF 250w 1.8-70 common mode filter $ 89.99
CF5KV-UHF 5kw 1.8-70 common mode filter 124.99

RF PARTS (See Diamond)

RF PRODUCTS (RFP)

199-416 BNC mag mt, 10' coax w/BNC ..... $ 17.99

AES Price

RACOM (RCO)

700 Automatic morse code identifier .....Δ $ 19.99

Radio Am Callbook (RAC)

059332 2002 World Radio TV Handbook ..... $ 24.95
08762X 2002 N America/Int CD-ROM callbook 49.99

RAMSEY (RAM)

AA-7 Active antenna kit ..... $ 28.99
AF-1 Hi-Q CW audio filter kit .....Δ 19.99
AR-1 Aircraft receiver kit 29.99
CS-1 Crystal radio set kit 19.99
CW-7 CMOS keyer kit 24.99
DF-1 Foxhound direction finder kit 59.99
DN-1 Nicad conditioner/fast charger kit ....Δ 19.99
FR-1 FM broadcast receiver kit 24.99
HR-20 20m receiver kit 29.99
HR-40 40m receiver kit 29.99
HR-80 80m receiver kit .....D 19.99
PR-10 2m preamp kit 17.99
QRP-20 20m CW transmitter kit 29.99
QRP-40 40m CW transmitter kit 29.99
QRP-80 80m CW transmitter kit 29.99
RFS-1 RF sensed switch kit 14.99
SCA-1 SCA decoder kit 27.99
SR-1 Shortwave receiver kit .....D 19.99
SR-2 Shortwave receiver kit 29.99
TS-1 CW touch paddle switch kit 6.99
UT-5 Universal timer kit 8.99
VS-1 Voice activated switch kit 6.99

RANGER (RAN)

SRA-106A Speaker/mic; RCI-1000 VHF HT ..D $ 2.99
RCI-2950DX 10/12m 25w SSB/10w FM/AM/CW 269.99
RCI-2970DX 10/12m 150w SSB/50w FM/AM/CW 399.99
RCI-5054DX 6m 25w SSB/10w FM/AM/CW ... 299.99

SGC (SGC)

04-01 SG-2000 150w 1.8-30 MHz 12v Xcvr 1599.99
04-11 Std SG-2000 rem head/bkt/20' cable 589.99
04-15 Remote mobile head/mem ch's only 449.99
51-82 Fan kit for continuous duty xmit 269.99
04-10 SG-2000 Xcvr w/DSP/PowerTalk head .. 1849.99
04-23 SG-2000 Xcvr/DSP/PowerTalk remoted 2099.99
04-12 Remote kit w/swivel bkt & cable ..Δ 149.99
04-13 Remote kit w/5-way mt & cable ....D 239.99
04-22 PowerTalk remote head 799.99
52-32 Carbon telephone handset .....D 119.99
52-34 RS-232 interface; SG-2000 Xcvr 179.99
52-51 CA-1 High voltage feed wire .per ft. .79
52-53 CA-230 Ant coupler cbl; custom per ft. 4.99
52-54 CA-2000 Rem head cbl; custom per ft. 4.99
53-04 PS-30 30A/40A peak unreg ps 389.99
53-05 PS-50 50A/70A peak unreg ps 419.99
52-61 PSC/12-1 12' ps cable, 1 plug 50.99
52-62 PSC/12-2 12' ps cable, 2 plugs .. 60.99
05-01 SG-2020 Mini 20w PEP QRP Xcvr/mic 675.99
05-02 SG-2020 Mini 20w PEP QRP Xcvr/mic/ADSP 795.99
54-22 SG-239 200w Smartuner 249.99
52-96 SG-500 1.8-24MHz 12v 500w PEP amp 1169.99
51-82 Fan kit for continuous duty xmit 269.99
54-14 SG-230 200w 1.8-30 MHz 12v Smartuner 489.99
54-61 25' extension cable 60.99
54-62 50' extension cable 90.99
54-63 SmartLock; tuners made after 9/1/93 59.99
54-15 SG-235 500w 1.8-30MHz 12v Smartuner 1169.99
54-16 SmartPro 200w 1.6-30MHz 12v tuner D 449.99
54-17 SG-231 HF+6m 12v Smartuner 529.99
54-18 SG-237 100w PEP HF+6m mini Smartuner ... 359.99
54-19 SG-237 PCB only 100w PEP Smartuner 249.99
55-04 SG-103 1.8-30MHz 150w dipole 229.99
55-06 SG-104 2-28 MHz 90' 1kw dipole 629.99
55-27 SG-303 1.8-30 9' mobile whip & mt . 449.99
55-67 Replacement whip for SG-303 ..... 249.99

SGC - continued

AES Price

55-28 SG-307 1.8-60 7' mobile whip & mt . 449.99
55-47 QMS-2 Quick mt sys w/SG-230/303 whip 895.99
55-48 QMS-3 500w antenna system 2169.99
55-49 QMS-7 Quick mt sys w/SG-231/307 whip 1249.99
55-50 QMS-37 Quick mt sys/SG-237, less whip 549.99

SAMLEX (SAM)

SEC-1223 23A switching ps w/fan, 25A surge $ 89.99

SANGEAN (SAN)

ATS-404 AM/FM/SW portable receiver w/case † $ 89.99
ATS-505 AM/FM/SW portable receiver 129.99
ATS-606A AM/FM/shortwave portable receiver 149.99
ATS-818 AM/FM/shortwave portable receiver 179.99
ATS-818CS AM/FM/SW port Rcvr w/cassette . 229.99
ATS-909 AM/FM/shortwave portable receiver 269.99
DT-200V AM/FM/VHF TV sound dig port Rcvr 69.99

SEQUOIA (SEQ)

POCKET PC REF Pocket PC reference book ... $ 14.99
POCKET REF Pocket reference book 9.99
WinRef 98-95 Windows pocket reference book 9.99

SHAKESPEARE (SHA)

4036-1H Hvy duty mirror mt w/coax adapter .. $ 7.99
5302 8' VHF marine/Loran combo ant .....Δ 19.99
396-1 3 db, 5' VHF marine ant, less mount .. 59.99
5101 6 db, 8' VHF marine ant, less mount ... 49.99
5202 6db 8' VHF mar ant/chrome ferrule, less mt 69.99
5206-C Econo 8' VHF mar ant/chrome ferrule, no mt 39.99
495 White plastic lift & lay mount 16.99
4187 Stainless steel ratchet mount 36.99
420 3db, 5' VHF marine ant w/fold-down mt 59.99

SHURE (SHU)

526T Series II Dynamic amplified desk mic . $124.99
R96 Replacement cartridge 27.99

Smiley Antenna (SMI)

270A 2m/440 gain telescopic whip ..... $ 19.99
270A/SMA 2m/440 gain tele whip w/SMA 19.99
5/8 SLD-2 2m ⅝ Slim Duck rubber ant 17.99
5/8 SLD-220 220 ⅝ Slim Duck rubber ant 17.99
5/8 SLD-440 440 ⅝ Slim Duck rubber ant 17.99
5/8 SLD-2 Combo 2m ⅝ duck & stubby ant .. 24.99
5/8 SLD-220 Combo 220 ⅝ duck & stubby ant 24.99
5/8 SLD-440 Combo 440 ⅝ duck & stubby ant 24.99
FLX 1/2 WAV-2M ½ wv 2m BNC whip/flex coil 25.99
RD-2 2m rubber duck antenna 14.99
RD-220 220 rubber duck antenna 14.99
RDMD-2 2m mini rubber duck antenna 14.99
RDMD-220 220 mini rubber duck antenna ... 14.99
RDMD-440 440 mini rubber duck antenna ... 14.99
RDS-2 2m stubby rubber duck antenna 14.99
RDS-220 220 stubby rubber duck antenna ... 14.99
RDS-440 440 stubby rubber duck antenna ... 14.99
SD-2 2m Slim Duck thin rubber antenna 14.99
SD-220 220 Slim Duck thin rubber antenna . 14.99
SL-440 440 slimline type duck 12.99
SS-II Super Stick 2m ⅝ wv telescopic ant 19.99
SS-III Super Stick 220 ⅝ wv telescopic ant .. 19.99
SS-IV Super Stick 440 ⅝ wv telescopic ant ... 19.99
SS-II/Combo 2m ⅝ wv telescopic & stubby ant 26.99
SS-III/Combo 220 ⅝ wv telescopic & stubby ant 26.99
SS-IV/Combo 440 ⅝ wv telescopic & stubby ant 26.99
TAQ-2 2m ¼ wave stainless whip 10.99
TAQ-220 220 ¼ wave stainless whip 10.99
TAQ-440 440 ¼ wave stainless whip 10.99
TS Thin Stick 2m/220 ⅝ wave telescopic whip 16.99

SOLARCON (SOL)

A-99 10m/CB 17' 8" fiberglass base ant ..... $ 64.99
GPK-1 Ground plane radial kit 39.99

SONY (SON)

Sony - continued

AES Price

RFU-W100 RF adapter for WebTV .....Δ $ .69

SHORTWAVE/SCANNERS

ICF-2010 AM/FM/SW/LW/air port Rcvr w/ps .. $359.99
ICF-SW07 AM/FM/SW micro Rcvr w/ps 399.99
ICF-SW11 AM/FM/SW compact receiver 49.99
ICF-SW12 AM/FM/SW travel Rcvr/world clock ... 99.99
ICF-SW35 AM/FM/SW portable receiver 89.99
ICF-SW40 AM/FM/SW port receiver 129.99
ICF-SW77 AM/FM/SW portable receiver 469.99
ICF-SW100S AM/FM/SW portable receiver 349.99
ICF-SW1000T AM/FM/SW port Rcvr/cassette † 399.99
ICF-SW1000TS AM/FM/SW Rcvr/tape/AN-LP1 D 399.99
ICF-SW7600G AM/FM/SW portable receiver D 179.99
ICF-SW7600GR AM/FM/SW portable receiver 179.99
AC-E60HG 6vdc 400ma AC adapter 22.99
AN-1 LW/MW/SW outdoor active rcv ant 99.99
AN-102 LW/MW/SW indoor active rcv ant ... 79.99
AN-LP1 Folding active loop ant w/case 89.99
ICF-SC1 300 ch pocket scanner .....D 179.99
AC-E60HG 6vdc 400ma AC adapter 22.99
DCC-E260 Mobile DC adapter .....D 19.99
ICF-B200 AM/FM emergency radio/light/alarm .D 49.99

STARTEK (STR)

APA-9/VPA-9 9vdc auto power adapter .....Δ $ 2.99
BP-150 130 - 500 MHz bandpass filter .....Δ 19.99
CAM-PHA-AES B&W pinhole TV cam/mic/ps ..D 49.99
CC-90 Carrying case .....Δ 4.99
DC-10 Direct probe .....Δ 4.99
HP-400 400 - 1500 MHz bandpass filter ...Δ 19.99
HP-800 800 MHz - 2 GHz bandpass filter ...Δ 19.99
LP-22 Lo-pass probe .....Δ 4.99
LP-60 DC - 60 MHz bandpass filter .....Δ 19.99
M-207-IC Interface cable .....Δ .99
P-110 Probe, 200MHz csope, 500 MHz FC ..Δ 14.99
RD-800 800MHz rubber duck antenna .....Δ 4.99
TA-90 Telescopic antenna .....Δ 4.99

SUPERIOR (SUP)

18640 Universal grip-type adjustable HT cradle $ 14.99
(HOU) CPM-310 6" adjustable pedestal mt .. 14.99

Synthetic Textiles (SYN)

100' 3/32" black double braided rope ..... $ 6.99
100' 3/16 3/16" black double braided rope 14.99
100' 5/16 5/16" black double braided rope 19.99
350' 3/16" black double braided rope 39.99

TE SYSTEMS (TES)

0510G 6m FM/SSB 10/170w amp/preamp $319.99
0552G 6m FM/SSB 20-25/375w amp/preamp 486.99
1410G 2m FM/SSB 5-10/160w amp/preamp 328.99
1412G 2m FM/SSB 25-45/160w amp/preamp 286.99
1452G 2m FM/SSB 10-25/350w amp/preamp 525.99
2212G 220 FM/SSB 25-45/130w amp/preamp 316.99
4412G 440 FM/SSB 15-30/100w amp/preamp 355.99
4452G 440 FM/SSB 25/185w amp/preamp ... 547.99

TV ALLOWANCE (MIN)

100 TV Allowance TV/video time manager ..... $ 79.99

TV GUARDIAN (TVG)

TV Guardian Foul language filter for TV/video $ 89.99

Terk Technologies (TER)

AF-9330 Amplified indoor AM/FM tower ant .. $ 24.99
AF-9925 Amplified indoor AM/FM loop ant 49.99
AM-1000 Indoor passive fine-tunable AM ant 49.99
FM-50 Amplified indoor/outdoor FM ant kit ... 99.99
LF-20 2.4GHz wireless video/audio system ... 89.99
TSP-6 AC/TV/telephone surge protector 39.99
TV-50 Amplified indoor/outdoor TV ant kit 79.99
TV-MAST Mast mount kit for TV-50 .....D 14.99
TV-41 Clip-on mini dish mt amp TV ant; 1 LNB dish D 49.99
TV-42 Clip-on mini dish mt amp TV ant; 2 LNB dish 59.99
TV-55 Indoor/outdoor TV antenna 89.99

AES Price

Texas Bugcatcher (TEX)

ADAPT-6M 6m adapter for BG-1500 .....D $ 9.99
BM-EXT 24" stainless mast extension/guy kit .... D 16.99

Times Microwave (TMS)

LMR-400 Standard ⅜" coax cable .....per ft. $ .64
LMR-400 .....500 ft. Roll 249.99
LMR-400-DB Watertight ⅜" coax cable per ft. .74
LMR-400-DB .....500 ft. Roll 299.99
LMR-400-UF UltraFlex ⅜" coax cable ...per ft. .98
LMR-400-UF .....500 ft. Roll 399.99

TIMEWAVE/AEA

TIMEWAVE (TIM)

DSP-599zx All-mode DSP noise filter $399.99
(AEA) AC-4 12vdc 1.5A ps 19.99
DSP-RTTY RTTY prog; DSP-599zx/59Y 69.99
ANC-4 RF noise canceller 199.99

TIMEWAVE/AEA DATA/SOFTWARE (AEA)

100K/PK-12 100K mail upgrade; PK12 .....D $ 4.99
100K 100K mem upgrade; PK-96 .....D 6.99
PK-96/100K 9600 baud control/128K RAM 199.99
AC-1 12vdc 600 ma adaptor 15.99
PC Pakratt Lite Packet only term prog .....D 1.99
PK-232/DSP Packet controller w/DSP 450.99
AC-4 12vdc 1.5A ps 19.99
AEA-FAX III-900 PK900/IBM FAX software ..D 19.99
PC-Pakratt for Win 2.0 IBM; 12/88/232 ..... 99.99
WeFax-256 WX FAX Win prog; 1232/2232 ....D 49.99
AA.COM SWR curve IBM soft; 121 & V/U .....D .99
Ham University Written/code Win soft w/exam Δ 29.99
Morse University II Code/written Win soft w/exam D 24.99

TRIPP LITE (TRI)

PV-140 140w 12vdc-115vac inverter ..... $ 42.99
PV-300 300w 12vdc-115vac inverter 65.99
ISOBAR-8 ULTRA 8 outlet surge suppress/LEDs 79.99
MT-6+ 6 outlet console surge suppressor ..Δ 49.99
SUPER-7 7 outlet surge suppressor 19.99
SUPER-7+TEL 7 outlet/fax modem surge 29.99

TUBES (TUB)

6146W Tube ..... $ 26.99
12BY7A Tube 12.99
3-500G High dissipation tube (3-500Z) .....D 119.99
3-500ZG-RFP High dissipation tube (3-500Z) 149.99
3-500Z 229.99
572B Tube 49.99
811A Tube 19.99

Also see SVETLANA

US TOWER (UST)

FREE STANDING CRANK-UPS (not for T²X)

TX-438 38' crank-up tower .....T 1142.99
TX-455 55' crank-up tower .....T 1699.99
TX-472 72' crank-up tower .....T 2832.99
TX-472MDP 72' crank-up w/motor drive .....T 4549.99
TX-489MDPL 89' crank-up w/motor drive ...T 7390.99
TX-3106MDPLSP 106' crank-up/mot drive .†T 11699.99

FREE STANDING HD CRANK-UP TOWERS

HDX-538 38' crank-up tower .....T 1477.99
HDX-555 55' crank-up tower .....T 2569.99
HDX-572MDPL 72' crank-up w/motor drive .T 6775.99
HDX-589MDPL 89' crank-up w/motor drive .T 8869.99
HDX-689MDPL 89' HD crank-up w/motor ....T 17135.99
HDX-5106MDPL 106' HD crank-up w/motor T 18647.99

COMPACT TMM (Top mt rotor for full retraction)

TMM-433SS 33' crank-up tower .....T 1219.99
TMM-433HD 33' HD crank-up tower .....T 1477.99
TMM-541SS 41' crank-up tower .....T 1599.99

ACCESSORIES FOR CRANK-UP TOWERS

CX-2 Coax arms (2) for 2-section tower ..... $ 55.99
CX-3 Coax arms (3) for 3-section tower 77.99

Order Toll Free at 4 Locations Nation-Wide 1-800-558-0411 WI
Browse Our Store On-Line at www.aesham.com

US Tower - continued

	AES Price
CX-4 Coax arms (4) for 4-section tower	122.99
CX-5 Coax arms (5) for 5-section tower	150.99
CX-6 Coax arms (6) for 6-section tower	190.99
HDP Service platform T	813.99
STS-4 Rotor accessory for TX/TMM towers T	211.99
IV-16 Inverted vee arm for MA's	41.99
M-5 2" OD 5' mast extension for MA's	40.99
M-10 2" OD 10' mast T	77.99
M-15 2" OD 15' mast T	115.99
M-20 2" OD 20' mast T	136.99
M-15R 2" OD 15' reinforced mast T	156.99
M-20R 2" OD 20' reinforced mast T	207.99
CM-20 2" OD 20' cromolly mast T	489.99
MD-75 Heavy duty 1 HP motor drive T	997.99
MDP-750* Pull-down drive; TX-472/HDX-555 T	1551.99
MDPL-1000* Pull-down drive; HDX-572 T	2106.99

*Requires MCL-100 or RMC-1000. MDP-750 and MDPL-1000 not sold separately

MRF Mast raising fixture	268.99
MCL-100 Limit switch package	465.99
RMC-1000 Remote control w/limit switch	997.99
RP-3 Rotor plate for 10" section	39.99
RP-4 Rotor plate for 12½" section	47.99
RP-5 Rotor plate for 15" section	52.99
TRX-80 Raising fixture; TX-438/455;HDX-538/555 T	434.99
TRX-80HD Raising fixture;TX-472/489;HDX-572/589 T	571.99
TRX-100HD Raising fixture; HDX-689/5106 T	805.99
TB-2US Thrust bearing; 2" mast w/2 flange holes	110.99

MA-SERIES TUBULAR TOWERS

MA-40 40' crank-up mast T	$899.99
MA-550 55' crank-up mast T	1499.99
MA-550MDP 55' crank-up mast w/motor T	2932.99
MA-770* 70' crank-up mast T	2529.99
MA-770MDP* 70' crank up mast w/motor T	3999.99
MA-850* 85' crank-up mast T	3909.99
MA-850MDP* 85' crank-up mast w/motor T	5391.99

*Requires MAB or MARB-series base

MA-SERIES ACCESSORIES

CX-2M Coax arms (2) for MA-40	$ 59.99
CX-3M Coax arms (3) for MA-550	88.99
CX-4M Coax arms (4) for MA-770	133.99
CX-5M Coax arms (5) for MA-850	160.99
MAB-40 Hinged base for MA-40 T	361.99
MAB-550 Hinged base for MA-550 T	432.99
MAB-770 Hinged base for MA-770 T	522.99
MAB-850 Hinged base for MA-850 T	633.99
MAF-40 Raising fixture for MA-40	221.99
MAF-550 Raising fixture for MA-550 T	306.99
MAF-770 Raising fixture for MA-770 T	311.99
MAF-850 Raising fixture for MA-850 T	412.99
MARB-40 Rotor base accessory for MA-40 T	553.99
MARB-550 Rotor base accessory for MA-550 T	654.99
MARB-770 Rotor base accessory for MA-770 T	774.99
MARB-850 Rotor base accessory for MA-850 T	916.99

All US TOWER products are drop-shipped (shipped direct to you from the US TOWER factory). On these factory drop-shipments we prefer payment in full with order, however, we will accept your credit card with the understanding that we will process the charge when we order the merchandise from the factory. This means that you may be billed before you receive your drop-shipped merchandise. Shipment is FOB Visalia, California via truck, COD for freight charges only. Freight charges will be collected upon delivery by the carrier. Please allow sufficient time for delivery on these special order products. Most truck lines will not unload the tower for you, so please be sure to have enough manpower and/or equipment on hand when your tower is delivered by the carrier.

UNADILLA (See W2AU)

UNIDEN (UNI)

EHD-1200GB 900MHz Harley black cordless D	$ 39.99
EXA-7950 900MHz cordless ph/dig ans mach D	49.99

Uniden - continued

	AES Price
EXP-7902 900MHz cordless phone D	29.99
EXS-9910 900MHz dig spread spec cordless D	49.99
Grant-LT SSB/AM Mobile CB D	169.99
PRO-340XL 40 ch portable CB/rubber ant D	39.99
PRO-501XL AM Mobile CB D	29.99
PC-68LTW AM Mobile CB w/WX alert	99.99
PC-68XL AM Mobile CB	89.99
PC-78LTW AM Mobile CB w/WX alert	129.99
PC-78XL AM Mobile CB	109.99
PRO-510XL AM Mobile CB	44.99
PRO-520XL AM Mobile CB	59.99
PRO-538W AM Mobile CB w/WX	69.99
ESP-26 External speaker D	16.99

UNIDEN BEARCAT

BCT-10 Pre-prog hiway info sys scan D	$ 79.99
BC-244CLT 30 ch scanner w/instant WX	99.99
BC-248CLT 50 ch scanner w/WX alert	109.99
BC-278CLT 100 ch scanner/SAME WX alert	179.99
BC-350A 50 ch prog/service search w/AC ps	119.99
BC-780XLT 500 ch scanner/trunk/SAME WX	369.99
BC-895XLT 300 ch prog scanner/trunking	219.99
BCT-7 Pre-prog warning scan/air/800/AC ps	179.99
BC-002 CTCSS tone board; BC-760XLT Δ	39.99
BC-003 Switch box for BC-002 Δ	9.99
BC-004 RF preamp for BC-760XLT Δ	24.99
BC-005 CTCSS tone board; 8500/9000XLT Δ	37.99
BC-60XLT-1 30ch prog pocket; use AA batts	99.99
BC-80XLT 50 ch prog pocket scanner/800	149.99
UA-502 Cig power cord	11.99
AD-100 AC adapter/batt cgr; earlier scanners	16.99
AD-140 Extra charger; BC-100XLT/200XLT	13.99
BP-70 Extra battery for BC-70XLT Δ	27.99
BP-200 Extra battery; BC-200XLT	26.99
BP-205 Extra battery; BC-100XLT	26.99
SC-180B 100 ch sport pocket/800 MHz	179.99
SC-200 200 ch sport pocket/800 MHz	219.99
AD-70 Extra charger	10.99
BP-120 Extra battery	18.99
LC-120 Carrying case; BC120XLT/230XLT	19.99
(KOS) **QZ/99** Noise reduction headphones	59.99
UA-502 Cig power cord	11.99
BC-245XLT 300ch pocket/trunk/smart scan	229.99
BP-180 Extra battery	16.99
CRX-120 Desk charger; BC-245XLT	24.99
LC-120 Carrying case	19.99
UA-502 Cig power cord	11.99
BP-2500 Extra batt; BC2500/3000 Δ	63.99
LC-150B Carrying case; SC-150B Δ	9.99
LC-2500 Carrying case; BC-2500/3000XLT Δ	12.99
WX-100 SAME weather radio/hazard alert D	49.99
NPD-001 National frequency book Δ	9.99
RFD-001 IN/IL/KY/OH/MI/WI freq book	14.99
HH-940P 1w submersible VHF marine handheld	149.99
HH-955 5w VHF marine handheld	99.99
HH-980 5w 90ch dlx marine handheld/WX alert D	139.99
HH-985 5w 90ch marine handheld/SAME WX alert	159.99
MC-535 25w 90 ch VHF marine Xcvr Δ	99.99
MC-1020 25w VHF marine Xcvr D	139.99

Unified Microsystems (UNM)

XT-4 Small size CW memory keyer	$ 69.99
KC-4 Cable set for XT-4 to transceiver	9.99
W9XT Contest card for IBM PC & compatible	149.99
CCC-4 4pin mic contest card cable semi-kit	44.99
CCC-8 8pin mic contest card cable semi-kit	44.99

Universal Towers (UNT)

4-30 4 sq ft wind load 30' alum tower T	$325.99
9-30 9 sq ft wind load 30' alum tower T	438.99
12-30 12 sq ft wind load 30' alum tower T	576.99
21-30 21 sq ft wind load 30' alum tower T	684.99
23-30 23 sq ft wind load 30' alum tower T	906.99

Universal - continued

	AES Price
35-30 35 sq ft wind load 30' alum tower T	1021.99
4-40 4 sq ft wind load 40' alum tower T	546.99
7-40 7 sq ft wind load 40' alum tower T	686.99
9-40 9 sq ft wind load 40' alum tower T	765.99
12-40 12 sq ft wind load 40' alum tower T	906.99
15-40 15 sq ft wind load 40' alum tower T	1013.99
21-40 21 sq ft wind load 40' alum tower T	1125.99
23-40 23 sq ft wind load 40' alum tower T	1347.99
4-50 4 sq ft wind load 50' alum tower T	769.99
5-50 5 sq ft wind load 50' alum tower T	875.99
7-50 7 sq ft wind load 50' alum tower T	985.99
9-50 9 sq ft wind load 50' alum tower T	1095.99
15-50 15 sq ft wind load 50' alum tower T	1455.99
16-50 16 sq ft wind load 50' alum tower T	1570.99
4-60 4 sq ft wind load 60' alum tower T	1096.99
6-60 6 sq ft wind load 60' alum tower T	1344.99
7-60 7 sq ft wind load 60' alum tower T	1431.99
9-60 9 sq ft wind load 60' alum tower T	1534.99
3-70 3 sq ft wind load 70' alum tower T	1429.99
4-70 4 sq ft wind load 70' alum tower T	1756.99
6-70 6 sq ft wind load 70' alum tower T	1788.99
7-70 7 sq ft wind load 70' alum tower T	1869.99
3-80 3 sq ft wind load 80' alum tower T	1926.99
4-80 4 sq ft wind load 80' alum tower T	2231.99
2-90 2 sq ft wind load 90' alum tower T	2311.99
B-14 Base for tower	67.99
B-18 Base for tower	67.99
B-22 Base for tower	103.99
B-26 Base for tower	132.99
Extra **14" stubs** (between base & tower) .set	14.99
Extra **18" stubs** (between base & tower) .set	26.99
Extra **22" stubs** (between base & tower) .set	42.99
Extra **26" stubs** (between base & tower) .set	42.99
Extra **30" stubs** (between base & tower) .set	63.99
RFM-11 Flat roof mt for guyed tower	46.99
RFM-14 Flat roof mt for guyed tower	46.99
RFM-18 Flat roof mt for guyed tower	72.99
RFM-22 Flat roof mt for guyed tower	97.99
RFM-26 Flat roof mt for guyed tower	129.99
R-11 Rotor mount	32.99
R-14 Rotor mount	49.99
R-18 Rotor mount	65.99

SEE LITERATURE FOR TOWER CONFIGURATIONS

11 Top 11" top tower section T	110.99
14 Top 14" top tower section T	138.99
18 Top 18" top tower section T	252.99
14 Taper 14" taper tower section T	122.99
18 Taper 18" taper tower section T	219.99
22 Taper 22" taper tower section T	327.99
26 Taper 26" taper tower section T	440.99
11 Straight 11" straight tower section T	108.99
14 Straight 14" straight tower section T	122.99
18 Straight 18" straight tower section T	219.99
22 Straight 22" straight tower section T	327.99
26 Straight 26" straight tower section T	440.99
HD35-40 35 sq ft wind load 40' alum tower T	1573.99
HD21-50 21 sq ft wind load 50' alum tower T	1677.99
HD9-60 9 sq ft wind load 60' alum tower T	1759.99
HD16-60 16 sq ft wind load 60' alum tower T	2119.99
HD21-60 21 sq ft wind load 60' alum tower T	2232.99
HD8-70 8 sq ft wind load 70' alum tower T	1979.99
HD12-70 12 sq ft wind load 70' alum tower T	2451.99
HD17-70 17 sq ft wind load 70' alum tower T	2674.99
HD21-70 21 sq ft wind load 70' alum tower T	2787.99
HD8-80 8 sq ft wind load 80' alum tower T	2533.99
HD9-80 9 sq ft wind load 80' alum tower T	2642.99
HD11-80 11 sq ft wind load 80' alum tower T	3002.99
HD12-80 12 sq ft wind load 80' alum tower T	3006.99
HD16-80 16 sq ft wind load 80' alum tower T	3227.99
HD4-90 4 sq ft wind load 90' alum tower T	2637.99

Universal - continued

	AES Price
HD8-90 8 sq ft wind load 90' alum tower ...T	3112.99
HD11-90 11 sq ft wind load 90' alum tower T	3558.99
HD4-100 4 sq ft wind load 100' alum tower T	3533.99
HD8-100 8 sq ft wind load 100' alum tower T	3780.99
B-30 Base for HD tower	207.99
RFM-30 Flat roof mt for guyed tower	180.99
1-5/8SC Flange bearing	98.99
2-3/16SC Flange bearing	109.99
Top Plate Flange plate welded to top section	24.99

SEE LITERATURE FOR TOWER CONFIGURATIONS

30 Taper 30" taper tower section ....T	554.99
30 Straight 30" straight tower section ....T	554.99
1-1/4" OD x 5 ft aluminum mast ....T	23.99
1-1/4" OD x 10 ft aluminum mast ....T	33.99
1-1/2" OD x 10 ft aluminum mast ....T	41.99
2" OD x 8 ft aluminum mast	49.99
2" OD x 16 ft aluminum mast ....T	95.99

All UNIVERSAL TOWERS products are drop-shipped (shipped direct to you from the UNIVERSAL TOWERS factory). On these factory drop-shipments we prefer payment in full with order, however, we will accept your credit card with the understanding that we will process the charge when we order the merchandise from the factory. This means that you may be billed before you receive your drop-shipped merchandise. Shipment is FOB Mt. Clemens, Michigan via truck, COD for freight charges only. Freight charges will be collected upon delivery by the carrier. Please allow sufficient time for delivery on these special order products. Most truck lines will not unload the tower for you, so please be sure to have enough manpower and/or equipment on hand when your tower is delivered by the carrier.

VALOR (See PRO AM)

VANCO (VCO)

370052 3½ digit multimeter	$ 19.99
HF-24RS Scanner headphones w/dual volume	19.99
SWR-1 SWR/field strength meter	19.99
SWR-3 Mini SWR meter	14.99

VAN GORDEN (VAN)

Hi-Q 1:1 balun	$ 14.99
Hi-Q 4:1 balun	14.99
Antenna center insulator	6.99
Antenna end insulator ....pair	4.99
Dog bone type antenna insulator ....each	.99
NR-100 Nylon antenna guy rope ....100 ft.	4.99
NR-1,000 Nylon ant guy rope ....1,000 ft.	44.99
D-80 80m 130' wire dipole antenna	32.99
SD-80 Short 90' 80m dipole	36.99
D-40 40m 66' wire dipole antenna	29.99
SD-40 Short 45' 40m dipole	34.99
D-20 20m 33' wire dipole antenna	28.99
D-15 15m 22' wire dipole antenna	27.99
D-10 10m 16' wire dipole antenna	26.99
All Bander Dipole 160-10m (use tuner) 135' ant	29.99
Shorty All Bander 160-10m (use tuner) 70' ant	44.99
G5RV Flat-top 5-band 102' ant/xmfr/100' cable	50.99
G5RV-E Flat-top 5-band 102' ant/31' twinlead	28.99
G5RV JR Flat-top 4-band 52' ant/17' twinlead	24.99
G5RV-M Flat-top 5-band 204' ant/65' twinlead	50.99
N connector Type N connector for 9913/8214	4.99
#14 Stranded hard drawn ant wire ....100 ft.	11.99
#14 Stranded hard drawn ant wire ....150 ft.	16.99
300 ohm 1kw transmitting twinlead ...100 ft.	19.99
450 ohm 18ga solid ladderline ....100 ft.	14.99
450 ohm 18ga solid ladderline ....1,000 ft.	109.99
450 ohm 14ga stranded ladderline ....100 ft.	29.99
450 ohm 14ga stranded ladderline ...1000 ft.	229.99
(WA1) WA1FFL **Ladder-Loc** 450 ohm ctr ins	12.99
RG-213 Non-contaminating ....per ft.	.49
RG-213/500 Non-contaminating .500 ft. Roll	179.99
8X-1.5ST 1.5' RG-8X coax/silver teflon PL259s	7.99
8X-3ST 3' RG-8X coax/silver teflon PL259s ...	8.99

Van Gorden - continued

	AES Price
8X-6ST 6' RG-8X coax/silver teflon PL259s ...	10.99
8X-12ST 12' RG-8X coax/silver teflon PL259s	11.99
8X-25ST 25' RG-8X coax/silver teflon PL259s	15.99
8X-50ST 50' RG-8X coax/silver teflon PL259s	24.99
8X-75ST 75' RG-8X coax/silver teflon PL259s	31.99
8X-100ST 100' RG-8X coax/silver teflon PL259s	37.99
213-25ST 25' RG-213 coax/silver teflon PL259s	25.99
213-50ST 50' RG-213 coax/silver teflon PL259s	38.99
213-75ST 75' RG-213 coax/silver teflon PL259s	54.99
213-100ST 100' RG-213 coax/silver teflon PL259s	72.99

VECTRONICS (VEC)

VC-300M 300w mobile antenna tuner	$ 99.99
VC-300DLP 300w antenna tuner	149.99
VC-300D 300w digital antenna tuner	179.99
HFT-1500 1.5kw antenna tuner	399.99
AT-100 .3-30 MHz active antenna/tuner	79.99
HPF-1 High pass filter, 75 or 300 ohms	24.99
HPF-2 Deluxe high pass filter, 75 or 300 ohms	29.99
LP-30 1.5kw low pass filter	69.99
LP-2500 2.5kw low pass filter	129.99
CK-200 Deluxe keyer	79.99
DL-300M 300w 150MHz dummy load	44.99
DL-650M 1.5kw 650MHz dummy load	74.99
DL-2500 2.5kw 150MHz dummy load	179.99
PM-30HF 300/3kw HF wattmeter	79.99
PM-30UV 30/300w VHF/UHF wattmeter	89.99
AC-12 12vdc 300ma adapter ....D	14.99
PS-50F 35A power supply, 50A surge ....Δ	139.99
121K Crystal radio set kit	19.99
131K Aircraft receiver kit	29.99
201K CW keyer kit	24.99
412K Nicad/NiMH battery conditioner kit	49.99
422K FM broadcast SCA decoder kit	27.99
820K Super CW audio filt kit, 750Hz center Δ	6.99
821K Super CW audio filter w/1w amp kit ..Δ	14.99
830K Super SSB audio filter kit	19.99
841K Tunable SSB/CW audio filter kit	34.99
1140K 40m receiver kit	29.99
1240K 40m QRP CW transmitter kit	29.99
1290K AM radio transmitter kit	29.99
1294K TV transmitter kit	27.99
1402K 2m preamp kit	17.99
1422K 220MHz preamp kit ....Δ	6.99

VELLEMAN (VEL)

DVM-810 3½ digit digital multimeter	$ 19.99

VENTENNA (FOR)

VT-15S Scanner Ventenna 3' 2.6 db base ...Δ	$ 39.99
VT-44 440 Ventenna 14" 2.6 db base ant ..Δ	39.99

VIBROPLEX (VIB)

090 Original Gold Bug	$309.99
100 Original Presentation Super deluxe bug	269.99
105 Original Deluxe Bug	199.99
110 Original Standard Bug	169.99
113 VibroKeyer Gold Paddle	279.99
115 VibroKeyer Deluxe Paddle	184.99
120 VibroKeyer Standard Paddle	149.99
123 Iambic Gold Paddle	279.99
125 Iambic Presentation Paddle	249.99
130 Iambic Deluxe Paddle	189.99
135 Iambic Standard Paddle	149.99
145 Triangular Brass Racer Iambic paddle	139.99
150 Square Brass Racer Iambic paddle	139.99
153 Gold straight key	279.99
155 Standard straight key	149.99
160 Deluxe straight key	189.99
162 Gold Hand key/Iambic Paddle double	369.99
163 Gold Hand key/VibroKeyer Paddle double	369.99
165 Deluxe Hand key/Iambic Paddle double	329.99
170 Dlx Hand key/VibroKeyer Paddle double	329.99
175 Standard Hand key/Iambic Paddle double	279.99

Vibroplex - continued

	AES Price
180 Std Hand key/VibroKeyer Paddle double	279.99
185 Square Racer Deluxe Iambic paddle	139.99
190 Square Racer Standard Iambic paddle	119.99
195 Blue Racer 2000 Std Millennium Bug	189.99
198 Blue Racer 2000 Dlx Millennium Bug	229.99
200 Code Warrior Junior Paddle	99.99
205 Venus Key Chrome paddle special order	449.99

WA1FFL (WA1)

Ladder-Loc 450 ohm ladderline center attach	$ 12.99

W2AU (Unadilla) (W2A)

W2AU 1:1 160-10m balun, lightning arrestor	$ 24.99
W2AU 4:1 160-10m balun, lightning arrestor	24.99
W2AU Beam Balun, 1:1	24.99
W2DU-HF 1:1 1.8-30 MHz choke balun	26.99
W2DU-VHF 1:1 30-250 MHz choke balun	26.99
W2DU Beam Balun 40-10m 1:1 choke balun	26.99
HA AN-sulator center insulator	9.99
HE END-sulator end insulators ....pair	4.99
KW-80CW Reyco 80m CW ant traps ....D,pair	48.99
KW-30 Reyco 30m antenna traps ....D,pair	42.99
KW-12 Reyco 12m antenna traps ....D,pair	41.99
KW-10 Reyco 10m antenna traps ....D,pair	41.99

W5YI (W5Y)

ECS Extra upgrade software/manual/code	$ 34.99
GUS General upgrade software/manual/code	34.99
GW05 Gordon West 6 ea 0-5 wpm code tapes	29.99
GW13 Gordon West 6 ea 5-16 wpm code tapes	29.99
GW20 Gordon West 6 ea 10-28 wpm code tapes	29.99
GWEM Gordon West Extra study manual	14.99
GWEW Gordon West 4 ea Extra theory tapes	19.99
GWGM Gordon West General study manual	12.99
GWGW Gordon West 4 ea General theory tapes	19.99
GWTM Gordon West Technician study manual	11.99
GWTW Gordon West 4 ea Tech theory tapes	19.99
HOS Ham operator software/code (all classes)	39.99
NCS Technician software w/manual	34.99
NCVP Technician video/manual/part 97 book	29.99
TPG Tech/General software/manuals/code	49.99
WMC 0-48 wpm code software	12.99

WAHL (WAH)

7740 Quick charge cordless soldering iron kit	$ 47.99
7971 30 minute butane soldering iron	19.99
7974 120 minute butane soldering iron	27.99

WELLER (WEL)

7200PK 75w soldering gun kit	$ 29.99
EC-1002-1 40w temp controlled solder stn	199.99
WP-25 25w professional soldering iron	34.99
W-60P 60w temp controlled soldering iron	64.99
WSTA3 Pyropen portable LP soldering iron	99.99
WST2 Pyropen Jr. portable butane iron	89.99
WTCPT 60w temp controlled soldering stn	119.99

West Mtn Radio (WES)

RB/PL/C Rigblaster Plus for 8-pin radios	$139.99
RB/M8/C Rigblaster for 8-pin radios	109.99
RB/RJ/C Rigblaster for RJ-45 radios	109.99
RB/NO/8C Rigblaster nomic for 8-pin radios	59.99
RB/NO/RJC Rigblaster nomic for RJ-45 radios	59.99

WILSON (WIL)

Little Wil Magnetic mt CB antenna	$ 31.99
Trucker 2000 Black mobile ⅜-24 CB whip	57.99
W-1000 Magnetic Black mobile CB antenna	76.99
W-1000 Roof Top Black mobile CB antenna	57.99
W-1000 Trunk Lip Black mobile CB antenna	65.99

WINEGARD (WIN)

CX-0625 25' RG-6 TV coax w/F connectors	$ 10.99
CX-0650 50' RG-6 TV coax w/F connectors	15.99
CX-0675 75' RG-6 TV coax w/F connectors	19.99

Winegard - continued AES Price

CX-6100 100' RG-6 TV coax w/F connectors . 24.99
DS-2000 Universal pipe/tower mt; TV ant ..Δ 16.99
PR-7010 22 el 66.5" boom Prostar TV ant 39.99
PR-7032 33 el 103.25" boom Prostar TV ant 64.99
PR-7042 43 el 149.75" boom Prostar TV ant 99.99
TV-2900 Outdoor TV matching transformer 2.99
SM-2200 Base scanner ant/50' cbl/F connectors 45.99

YAESU (YAE)

Yaesu prices beyond 9/30/01 were unknown at press date

FT-1000MP MK V HF Xcvr/EDSP/tuner/ps †*2599.99
*Price w/instant coupon; coupon expires 9/30/01
DVS-2 Digital voice recording module 219.99
FH-1 Remote control keypad 88.99
FTV-1000 200w 6m transverter; Mk V 899.99
FP-29 30vdc ps; FTV-1000 w/orig MP 499.99
FRB-5 Relay board; FTV-1000 w/orig MP 50.99
MD-100A8X Desk mic w/tone control 129.99
MD-200A8X Deluxe high fidelity desk mic . 379.99
MH-31B8 Extra hand microphone 39.99
SP-8 External speaker w/filters 159.99
LL-7 Phone patch unit for SP-8 ..... 139.99
TCXO-4 TCXO unit; FT-1000MP only 99.99
TCXO-6 Deluxe TCXO unit, 0.5 ppm 174.99
YF-110CN 250 Hz 3rd IF main Rcvr CW filt 144.99
YF-110SN 2 KHz 3rd IF main Rcvr SSB filt 144.99
YF-114CN 250 Hz 2nd IF main Rcvr CW filt 144.99
YF-114SN 2 KHz 2nd IF main Rcvr SSB filt 144.99
YF-115C 500 Hz CW Collins mech filter 159.99
YH-77STA Open-air type stereo headphones 51.99

FT-1000D Dlx Xcvr/BPF/TCXO/XF-ABCDE/ps † *3999.99
*Price w/instant coupon; coupon expires 9/30/01
DVS-2 Digital voice recording module 219.99
FIF-232C Interface for RS-232 ..... 95.99
MD-100A8X* Desk mic w/tone control 129.99
*Cable needed for FT-1000D; contact service for info
MD-200A8X Deluxe high fidelity desk mic . 379.99
SP-5 External spkr w/audio filter 144.99
LL-5 Phone patch unit for SP-5 ..... 129.99
XF-455MC 600Hz CW filter (455KHz); subrcvr 144.99
YF-110CN/XF-F 250 Hz CW xtal filter (455 KHz) 144.99
YH-77STA Open-air type stereo headphones 51.99

FT-920 9-band Xcvr/AF-DSP/tuner/6m/kyr † *1089.99
*Price w/instant coupon; coupon expires 9/30/01
FM-1 FM unit FREE with FT-920! Limited Time!
FP-1023 23A switching ps w/fan, 25A surge ... 159.99
FP-1030A 25A ps, 30A surge w/meters 249.99
FM-1 FM unit 62.99
MD-100A8X Desk mic w/tone control 129.99
MD-200A8X Deluxe high fidelity desk mic . 379.99
SP-8 External speaker w/filters 159.99
LL-7 Phone patch unit for SP-8 ..... 139.99
T-9018320 Extra DC cable 26.99
TCXO-7 TCXO unit 99.99
YF-116A 6 KHz AM filter 119.99
YF-116C 500 Hz CW filter 119.99
YH-77STA Open-air type stereo headphones 51.99

FT-847 HF/6m/2m/430 Earth Station Xcvr/mic † *1249.99
*Price w/instant coupon; coupon expires 9/30/01
FP-1023 23A switching ps w/fan, 25A surge ... 159.99
FP-1030A 25A ps, 30A surge w/meters 249.99
ATAS-100 HF/6/2/430 motorized mob ant .. 319.99
ATBK-100 Antenna base kit; use w/base mt 89.99
CT-61 Interface cable; FT-847 to amp 15.99
FC-20 Automatic antenna tuner 269.99
FVS-1A Voice synthesizer 43.99
MD-100A8X Desk mic w/tone control 129.99
MH-36D8 TTP mobile microphone 60.99
MMB-66 Mobile mounting bracket 39.99
SP-8 External speaker w/filters 159.99
T-9018320 Extra DC cable 26.99
YF-115C 500 Hz CW Collins mech filter 159.99

Yaesu - continued AES Price

YF-115S-02 2.5 KHz SSB Collins mech filt 159.99
YH-77STA Open-air type stereo headphones 51.99

FT-840 HF Xcvr/SW Rcvr/mic .....† *579.99
*Price w/instant coupon; coupon expires 9/30/01
FP-1023 23A switching ps w/fan, 25A surge ... 159.99
FP-1030A 25A ps, 30A surge w/meters 249.99
FC-10 External coax fed auto tuner 379.99
FC-800 External long wire auto tuner 439.99
FIF-232C Interface for RS-232 ..... 95.99
FM-747 FM unit 62.99
MD-100A8X* Desk mic w/tone control 129.99
*Cable needed for FT-840; contact service for info
MD-200A8X Deluxe high fidelity desk mic . 379.99
MLS-100 Mobile speaker 45.99
MMB-20 Mobile mount 34.99
SP-6 External speaker w/filter 144.99
SP-7 Mobile speaker 40.99
T-9018320 Extra DC cable 26.99
TCXO-4 TCXO unit 99.99
YF-112A 6 KHz AM filter 119.99
YF-112C 500 Hz CW filter 119.99
YH-77STA Open-air type stereo headphones 51.99

FT-817 5w HF/6m/2m/430 SSB/AM/FM Xcvr *669.99
*Price w/instant coupon; coupon expires 9/30/01
(W4R) OTT-1 One-touch tune for FT-817 .... 59.99
CSC-83 Soft case w/side pocket for FT-817 25.99
CT-39 Packet cable 9.99
CT-62 CAT interface cable 29.99
EDC-6 Extra DC cord; plug & wire only 7.99
FNB-72 1000ma 9.6v nicad battery 60.99
MH-36E8J TTP mic 60.99
NC-72B Nicad wall charger 18.99
TCXO-9 TCXO unit, 0.5 ppm..... 99.99
YF-122C 500 Hz Collins CW filter 159.99
YF-122S 2.3 KHz Collins SSB filter 159.99

FT-100D MniHF/6/2/440/DSP/TT/CWfilt/TCXO/dec † *879.99
*Price w/instant coupon; coupon expires 9/30/01

FT-100D/ATAS FT-100D/ATAS-100 combo † *1199.98
*Price w/instant coupon; coupon expires 9/30/01
FP-1023 23A switching ps w/fan, 25A surge ... 159.99
FP-1030A 25A ps, 30A surge w/meters 249.99
ATAS-100 HF/6/2/430 motorized mob ant .. 319.99
ATBK-100 Ant base kit; use w/base mt .. 89.99
CT-39 Packet cable 9.99
CT-58 Band data cable; Yaesu amplifier ... 29.99
CT-62 CAT interface cable 29.99
CT-69 6-pin modular - 8-pin mic jack adapter 29.99
FC-20 Automatic antenna tuner 269.99
MLS-100 Mobile speaker 45.99
MMB-62 Remote front panel mounting bkt 39.99
MMB-67 Quick release bracket 29.99
SP-6 External speaker w/filter 144.99
LL-5 Phone patch unit for SP-6 ..... 129.99
SP-7 Mobile speaker 40.99
T-9021925 Extra DC cord 42.99
XF-117A 6 KHz AM filter .....† 99.99
XF-117CN 300 Hz CW filter .....† 99.99
Suggest dealer installation of filters in FT-100; only 2 sockets; use XF-117C & XF-117A or XF-117CN
YH-77STA Open-air type stereo headphones 51.99
YSK-100 Separation kit 79.99
CT-20 Mic cable for use with MD-1C8 .....D 4.99
CT-26 Mic adapter cable; modular to 8-pin .Δ 22.99
FAS-1-4R Remote antenna selector 129.99
FC-1000 HF wire antenna tuner .....D 199.99
FP-1023 23A switching ps w/fan, 25A surge 159.99
FP-1030A 25A ps, 30A surge w/meters 249.99
FRB-757 External relay box 31.99
FTS-27 CTCSS decoder unit; FT-100 .....Δ 47.99
MH-31A8J Extra hand mic; FT-900 .....Δ 39.99
TCXO-2 TCXO unit; FT-990 .....D 49.99
TCXO-8 TCXO unit; FT-100 .....Δ 89.99
XF-110C 500Hz CW filter; FT-900 .....D 49.99
XF-117C 500 Hz CW filter; FT-100 .....Δ 89.99

Yaesu - continued AES Price

YA-30 1.8-30 MHz broadband dipole ant 229.99
YF-115S-01 2.75KHz Collins SSB filt; FT-900 D 49.99
YH-77ST Open-air type stereo headphones ... 51.99
YS-60 1.8-60 MHz 2kw PEP wattmeter 129.99
YS-500 140-520 MHz 200w PEP wattmeter .. 109.99

Quadra System VL/VP1000 HF+6m amp/ps/tuner 3999.99

FRG-100B .1-30 MHz shortwave receiver ..† *479.99
*Price w/instant coupon; coupon expires 9/30/01
FM Unit-100 FM unit..... 47.99
TCXO-4 TCXO unit 99.99
YF-110CN/XF-F 250 Hz CW xtal filter 144.99
YF-115C 500 Hz CW Collins mech filter 159.99

VR-120 .1MHz-1.2995GHz AM/FM hand/cell blkd † *129.99
*Price w/instant coupon; coupon expires 9/30/01
51R Clone/CT-35 Clone cable; VR-120 ..... 9.99
CSC-76 Soft case for VR-120 ..... 19.99

VR-500 .1M-1.3G AM/FM/SSB hand/cell blkd † *199.99
*Price w/instant coupon; coupon expires 9/30/01
51R Clone/CT-35 Clone cable; VR-500 ..... 9.99
ADMS-3 Windows programming software .. 39.99
CSC-72 Soft case for VR-500 ..... 19.99
EDC-5B DC adapter w/noise filter 26.99
EDC-6 DC adapter; plug & wire only 7.99
FNB-59 Nicad battery for VR-500 ..... 29.99
NC-60B Wall charger 14.99

VR-5000 .1M-2.6G base rcvr AM/FM/SSB/cell blkd *699.99
*Price w/instant coupon; coupon expires 9/30/01
DSP-1 DSP unit 119.99
DVS-4 Digital voice recorder 47.99
FVS-1A Voice synthesizer 43.99
E-736 DC cable for FT-736R .....Δ 16.99
FEX-736-50 6m module for FT-736R .....Δ 279.99
FEX-736-220 220 MHz module; FT-736R ...Δ 309.99
FEX-736-1.2 1.2 GHz module for FT-736R ..Δ 539.99
Keyer-B Electronic keyer unit; FT-736R .....Δ 26.99
AD-3 100w 2m/440 duplexer 52.99
FBA-8 Holder for 9 C nicads; 290/690/790 ...Δ 29.99
FRC-4 DTMF pager unit; FT-5200/6200 .....D 1.99
FTS-7A Encoder/decoder; newer 290/690/790 Δ 39.99
MH-27B8 8-pin TTP mic; FT-5200/6200 .....Δ 65.99

FT-7100M 50/35w 2m/440 FM Xcvr/TTP *299.99
*Price w/instant coupon; coupon expires 9/30/01
AD-3 100w 2m/440 duplexer 52.99
CT-39 Packet cable 9.99
MEK-2 Mic extension kit 42.99
MLS-100 Mobile speaker 45.99
MMB-60 Quick release mobile bracket 31.99
MMB-62 Remote front panel mounting bkt 39.99
SP-7 External speaker 40.99
YSK-7100 Remote separation kit 69.99

FT-90R 50/35w 2m/440 micro FM Xcvr .....† *319.99
*Price w/instant coupon; coupon expires 9/30/01
ADMS-2E Windows programming software 39.99
MEK-2 Mic extension kit 42.99
MLS-100 Mobile speaker 45.99
SP-7 External speaker 40.99
RA-0131900 Extra mobile bracket 4.99
T-9021810 Extra DC cable 12.99
YSK-90 Remote separation kit 64.99
FS-10 Deluxe mic for FT-8500 .....D 99.99
FTS-22 CTCSS decode unit; FT-8100R .....Δ 68.99
MH-39A6J Regular mic for FT-8500 .....Δ 49.99
YSK-8100 Rem separation kit; FT-8100R ...Δ 69.99

FT-3000M 70w 2m FM Xcvr/TTP/ext rcv ....† 399.99
ADMS-2D Windows programming software 39.99
CT-39 Packet cable 9.99
DVS-4 Digital voice recorder 47.99
FTS-17A CTCSS decode unit 47.99
MLS-100 Mobile speaker 45.99
MMB-36 Extra mobile bracket .....D 11.99
MMB-60 Quick release mobile bracket 31.99
SP-7 External speaker 40.99

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	AES Price
T-9021810 Extra DC cable	12.99
FRC-6 DTMF pager; 2400M/2500M/7400H ..D	2.99
MH-27A8J TTP mic/modular plug; early 2500M Δ	60.99
MH-36C8J Extra TTP mic; late FT-2500M	60.99
FT-2600M 60w compact 2m FM Xcvr/TTP mic †	*169.99
*Price w/instant coupon; coupon expires 9/30/01	
ADMS-2E Windows programming software	39.99
MLS-100 Mobile speaker	45.99
MMB-48 Extra mobile bracket	16.99
SP-7 External speaker	40.99
T-9021810 Extra DC cable	12.99
FT-1500M 50w 2m FM Xcvr/TTP mic †	*149.99
*Price w/instant coupon; coupon expires 9/30/01	
ADMS-2F Windows programming software	39.99
MH-36C8J Extra TTP microphone	60.99
MLS-100 Mobile speaker	45.99
RA-0242900 Extra mobile bracket	9.99
SP-7 External speaker	40.99
T-9021810 Extra DC cable	12.99
FP-1023 23A switching ps w/fan, 25A surge	159.99
FP-1030A 25A ps, 30A surge w/meters	249.99
LF-1 Mobile 13A DC noise filter	26.99
MLS-100 Mobile speaker	45.99
SP-3 Small mobile speaker ..D	23.99
SP-4 Mobile speaker	31.99
SP-7 External speaker	40.99
VXR-5000VADC/Vertex 25w 2m FM rptrr	1199.99
VXR-5000V/TA/Vertex 25w 2m FM rptr/ps D	1299.99
VXR-5000UCDC/Vertex 25w 440 FM rptr	1199.99
VXR-5000U/TC/Vertex 25w 440 FM rptr/ps D	1299.99
Repeaters require service dept. set-up; $72 minimum	
(COM) ID-8 Auto morse code ID'er	69.99
VXD-40UB/Vertex 440 duplexer (untuned)	199.99
Tuning charge; duplexer (specify freqs)	50.99
VX VPL-1D/Vertex PC prog cable & software	95.99

Accessories for 09-series

FNB-4A 500ma 12v battery; 09-series Δ	$ 62.99
FTS-6 Encoder/decoder; 09-series ..D	4.99

Accessories for FT-26/415/416/530

CA-8 2 chg sleeves; NC-50/FT-416/530..D	$ .99
CSC-50 Vinyl case; 415/416/FNB25 ..D	1.99
FBA-12 AA cell holder Δ	19.99
FT-33R 5w 220 FM HT/batt/cgr	299.99
FT-411 Mk II/12 5w 2m HT/FNB-12S/cgr/TTP	179.99

Accs for FT-23/33/73/411/811/470/911

CA-7 2 charging sleeves; NC-50/411E/470	$ 27.99
CLIP-1 Belt clip	7.99
CSC-24S Soft case; FT-23/33/73 w/FNB-12S ..D	.69
CSC-28 Soft case; FT-23/33/73 w/FNB-12S Δ	9.99
CSC-35 Soft case; FT-411/811/911/FNB-17 ..D	.99
CSC-37 Soft case; FT-411 w/FNB-12S/14	16.99
FBA-17 AA battery holder	19.99
FNB-12S 600ma 12v (5w) battery	55.99
FNB-17 600ma 7.2v battery	34.99
FTS-12 Encoder/decoder for FT-23/33/73	60.99
FTS-17A Encoder/decoder; FT-411	47.99
FTT-4 DTMF (TTP) unit for FT-23/33/73 ..D	2.99
MH-30C2B Speaker/microphone	45.99
MH-34C2B Compact lapel speaker/mic	30.99
NC-28B Extra wall charger for FNB-17	14.99
NC-34B Wall charger for FNB-14	14.99
NC-65B/NC-18B Wall charger for FNB-12S	14.99
PA-6 Mobile DC adapter/cgr; FNB-14/17	31.99
YH-2 Lightweight VOX headset w/mic	30.99
FT-50RD/41B 5w 2m/440 HT/FNB41/FTT-12 †	*209.99
*Price w/instant coupon; coupon expires 9/30/01	
ADMS-1E Windows programming software	39.99
CA-15 Charging stand; FT-10/40/50	27.99
NC-60B Wall charger; FNB-40/41/CA-15	14.99
CLIP-10 Spring loaded belt clip	7.99
CN-2 BNC to SMA adapter: FT-10/40 Δ	8.99
CN-3 BNC to SMA adapter: FT-50R	8.99

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	AES Price
CSC-68 Soft case; FNB-41/FBA-15	16.99
CSC-69 Soft case; FNB-40 Δ	6.99
CSC-V10 Cordura soft case; FT-10/40/50	27.99
CT-27A Cloning cable	10.99
CT-30 Microphone Y adapter	10.99
CT-53 Packet cable	9.99
EDC-5B DC adapter w/noise filter	26.99
EDC-6 DC cord; plug & wire only	7.99
FBA-15 4-AA battery holder	19.99
FBA-21 6-AA battery holder	38.99
FEP-10 Earphone	9.99
FNB-40 650ma 6v battery ..D	29.99
FNB-41 600ma 9.6v (5w) battery	58.99
FNB-42 1100ma 9.6v (5w) battery	62.99
FNB-V47 1100ma 7.2v battery w/belt clip	55.99
PA-17 Battery cable extender	57.99
FTT-12 16-key keypad/dec/DVRS; FT-50R ..D	19.99
LCC-10C Leather case/belt clip; 50/FNB41/V47	31.99
LCC-10S Leather case/swivel; 50/FNB41/V47	31.99
MH-30C2B Speaker/mic; use CT-30 also	45.99
MH-34B4B Speaker/mic	30.99
MH-37A4B Earpiece/microphone	30.99
NC-50 1-hour dual slot charger	92.99
CA-14 2 charging sleeves; NC-50	26.99
RH-1 Black rubber case protector	7.99
RH-1R Orange rubber case protector	7.99
VC-25 VOX headset	62.99
YHA-54 Replacement 2m/440 BNC duck	16.99
MH-29A2B LCD disp spkr/mic; FT-530/51R Δ	49.99

Accessories for FT-11R/41R/51R

CA-10 2 charge sleeves; NC-50/11/41/51 ..Δ	$ 14.99
CSC-61 Case; 11R/41R/FNB33/38/FBA14 ..Δ	9.99
CSC-62 Soft case; FT-11R/41R/FNB-31 Δ	.99
CSC-66 Soft case; FT51R/FNB33/38/FBA14 Δ	9.99
EDC-12 DC adapter; FT-11R/41R/51R Δ	38.99
FBA-14 AA battery holder Δ	19.99
FNB-31 600ma 4.8v battery Δ	29.99
FNB-33 1200ma 4.8v battery Δ	49.99
FNB-38 600ma 9.6v battery Δ	69.99
FTS-26 CTCSS decoder; FT-11R/41R Δ	39.99
MH-37B2B Earpiece/microphone Δ	19.99
NC-55B Wall charger for FNB-31 Δ	9.99
VC-22 VOX headset ..D	49.99
VX-1R 500mw 2m/440 submini HT/lith ion †	*129.99
*Price w/instant coupon; coupon expires 9/30/01	
ADMS-1E Windows programming software	39.99
CN-3 BNC to SMA adapter	8.99
CSC-71 Soft case for VX-1R †	16.99
CT-44 2-pin spkr/mic adapter	12.99
CT-53 Packet cable	9.99
EDC-15 DC adapter	38.99
FBA-20 Battery holder †	19.99
FEP-10 Earphone	9.99
FNB-52LI Extra 700ma 3.6v lith ion batt	36.99
MH-34B4B Speaker/mic	30.99
MH-37A4B Earpiece/microphone	30.99
NC-66B Extra 2 hour wall charger	18.99
VC-25 VOX headset	62.99
VX-5R 5w 6m/2m/440 FM HT/lith ion batt †	*279.99
*Price w/instant coupon; coupon expires 9/30/01	
VX-5RS Silver 5w 6m/2m/440 FM HT/lith ion	*299.99
*Price w/instant coupon; coupon expires 9/30/01	
ADMS-1E Windows programming software	39.99
CD-15 Charger stand (use with NC-72B)	29.99
CN-3 BNC to SMA adapter	8.99
CSC-73 Soft case for VX-5R	19.99
CT-27A Cloning cable	10.99
CT-44 2-pin spkr/mic adapter	12.99
CT-53 Packet cable	9.99
EDC-5B DC adapter w/noise filter	26.99
EDC-6 DC cord; plug & wire only	7.99
FBA-23 2 AA cell battery case	25.99
FNB-58LI Extra 1100ma 7.2v lith ion batt	69.99

Yaesu - continued

	AES Price
MH-34B4B Speaker/mic	30.99
MH-37A4B Earpiece/microphone	30.99
NC-72B Extra wall charger	18.99
SU-1 Altitude/barometric pressure sensor	35.99
VC-25 VOX headset	62.99
VX-150/Vertex 5w 2m HT/batt/cgr/16key TTP †	159.99
ADMS-1F Windows programming software	39.99
CN-3 BNC to SMA adapter	8.99
CT-27A Cloning cable	10.99
CT-44 2-pin spkr/mic adapter	12.99
CT-53 Packet cable	9.99
EDC-5B DC adapter w/noise filter	26.99
EDC-6 DC cord; plug & wire only	7.99
FBA-25 6 AA cell battery case	48.99
FNB-V57 1100ma 7.2v battery	70.99
FNB-64 Extra 700ma 7.2v battery	43.99
LCC-150/TT Leather case	23.99
LCC-150S/TT Leather case w/swivel	31.99
MH-34B4B Speaker/mic	30.99
MH-37A4B Earpiece/microphone	30.99
NC-72B Extra wall charger	18.99
VAC-400B 1-hour desk top rapid charger	56.99
VC-25 VOX headset	62.99

ANTENNA ROTORS

G-450A 10 sq ft antenna rotor/5-wire	$259.99
G-550 12 sq ft elevation rotor/6-wire	299.99
G-800SA Med/hvy duty 450 degree 17sq ft/5-wire	339.99
G-800DXA Med/hvy duty 17sq ft/presets/5-wire	429.99
G-1000DXA HD 450 degree 23sq ft/presets/6-wire	519.99
G-2800DXA HD 450 degree 34sq ft/presets/6-wire	1139.99
G-5500 11 sq ft azimuth/elevation rotor//2x6-wire	629.99
GA-2500 Tower absorber joint; G-450/800 ..D	79.99
GA-3000 Tower absorber joint; G-1000/2800	119.99
GC-038 Mast clamp; G-450/800/1000/5500	31.99
GC-048 Mast clamp; G-2800	47.99
GL-33 Mast adjustment plate	14.99
GS-050 50mm thrust bearing; mast 1¼-2"	31.99
GS-065 65mm thrust bearing; mast 1½-2½"	47.99
GS-232A Computer interface; DXA rotors	539.99
C-1000 Interface cable; GS-232A - SDX/G5500	29.99
GS-680U Universal self-adjusting mast bearing	99.99
Sep Kit Separation kit for G5500	23.99

See BELDEN for rotor cable

CONSUMER ELECTRONICS

VXA-120 Aviator Pro II 4w air handheld	$259.99
VXA-200/16-SU Aviator Pilot II 5w air HH/baro	429.99
FNB-53 Nicad battery pack; Yaesu FRS Δ	14.99

ZEISS (ZEI)

52 20 47 10x25 black binoculars Δ	$349.99
52 40 07 7x45 black forest binoculars Δ	929.99
52 40 13 10x40 rubber armored binoculars Δ	819.99
52 56 59 8x56 black forest binoculars Δ	1049.99

CLOSE-OUTS

AEA WeFax-256 WX FAX Win prog; 1232/2232	$ 49.99
ALI EBP-35N 7.2v 900ma nicad battery	59.99
ALI EDX-1 Manual coax feed antenna tuner	269.99
ALI EMS-12A TTP microphone; DR-M03SX	65.99
AOR AR-16B .5-1300MHz hand scan/cell blkd	199.99
AOR AR-8200B .5-2040 hand/SSB/cell blkd	479.99
AST Night Eagle Brass/black crystal desk mic	99.99
B&K 541 Component comparator	149.99
B&K 1646 0-16V, 0-10A power supply	169.99
B&K 2831A Digital bench multimeter	129.99
B&W ASW-90 500KHz-30MHz 90' rcv only ant	119.99
BAY FPR-1B AM/FM/SW 30min Freeplay radio	49.99
BAY FPR-2SC AM/FM/solar clear case Freeplay	49.99
BAY FPR-2SGSW AM/FM/SW/solar 60min Freeplay	69.99
BIR 25-T-MN 25w dummy load w/type N male	69.99
BLM DX-355 True RMS+20MHz freq multimeter	74.99
BUS 20-0600 Compact laser rangefinder 600	249.99

Close-Outs - continued

	AES Price
BUT 10/11 10/11m butterfly beam	169.99
CEL 21072 Firstscope 80 EQWA refractor telescp	249.99
CEL 31052 Firstscope 114 Premium reflector telescp	299.99
CES SDI-50 Dlx splx/dplx autopatch/rptr controller	399.99
CMT CYA-240 2m/440 9.5/11.6 3/5el 5.25' bm	69.99
COB 25LTD ST Sound Tracker AM Mobile CB	69.99
COB 25NW ST Night Watch Sound Tracker AM Mob CB	89.99
COM TE-64 64tone CTCSS/burst switch enc box	49.99
COU CPK-510 Prog kit for M-510/MU-510	89.99
COU M-54 5w 4ch VHF HH/batt/cgr/151.625	169.99
COU M-510 5w 10ch synth VHF FM hand-held	199.99
COU MU-510 5w 10ch synth UHF FM handheld	169.99
CUS 22N-SK Harness, pwr divider; 2 17B2s	119.99
CUS 26B2-VPK Vertical polar kit; 2 13B2s	129.99
CUS X-940 40m 1 el add-on kit for X-9	189.99
CUT HMP WorldPack backpack; mini HF Xcvr	57.99
CUT HPP-7A 7AH gel-cell w/overnight cgr	59.99
CUT HP-7AF 7AH gel-cell w/2.5 hr fast cgr	99.99
DIA CR-224A 2m/220 5/6db 69" mobile ant	89.99
DIA F-22J 143.5-146.5MHz 6.7db 10.5' base	79.99
DIA MX-3000N HF-2m/440/1.2 N triplxr, 12"cbls	85.99
DIA SG-6000NMO 52-54 2.15db 39" NMO mob	59.99
DRA TNC-270 9600 bps controller; TR-270	199.99
GAR NavTalk Analog cell phone/GPS combo	349.99
GRA KCT Kansas City Tracker sat package	229.99
HEI HMP In-line microphone preamp; Icom	55.99
HYG 191S 160MK-88 160m kit for 188S	69.99
IAC 40m-S 40m half sloper 33' antenna	79.99
ICO AD-25 Battery charger adapter; 2GXAT	49.99
ICO BP-3 250ma 8.4v battery	49.99
ICO BP-5 425ma 10.8v high power battery	89.99
ICO BP-8 800ma 8.4v long life battery	99.99
ICO BP-83 7.2v 600ma battery	79.99
ICO BP-84 7.2v 1000ma battery	99.99
ICO CT-16 Satellite interface unit	119.99
ICO HM-90A Wireless microphone	89.99
ICO IC-T2H 6w 2m FM HT/8 AA nicads/cgr	139.99
ICO IC-T22A 3w 2m FM HT/batt/cgr/TTP	229.99
ICO UT-30 Tone encoder; IC-707	49.99
ICO UT-89 Tone scan/decode unit; IC-2350H	89.99
KAN Data Engine TNC w/no modems	69.99
KAN Data Engine w/DE-1200 modem	99.99
KEN DRU-2 Digital recording unit; TS-950SDX	139.99
KEN SP-950 Ext spkr/audio filters; TS-950SDX	149.99
KEN TH-42AT 2.5w 440 FM HT/batt/cgr/TTP	229.99
KEN TSU-5 Prog CTCSS decoder; TS-790A	64.99
KEN TU-7 Prog encoder; 2550/751A/TW4100A	54.99
KEN TU-8 CTCSS tone unit; TS-450S/690S	54.99
KEN UT-10 10w 1.2 GHz module; TS-790A	549.99
KEN YG-455C-1 500 Hz CW filt; TS-450/690	149.99
MAG 00-19044-000 Low profile external ant	59.99
MAG GPS ColorTRAK 12ch color GPS w/case	239.99
MAG GPS Tracker 12 ch GPS w/wrist strap	169.99
MAG Meridian XL GPS/plotter/detachable ant	149.99
MFJ 47C Mailbox 512k memory; 1270/1274	69.99
MFJ 114B Giant LED desk/wall 12/24-hr clock	49.99
MFJ 203 160-10m bandswitched dip meter	69.99
MFJ 206 Antenna current probe	59.99
MFJ 442X SlimLine keyer only	69.99
MFJ 451X Morse keyboard interface only	64.99
MFJ 492X Mem keyer w/8000 char expansion	89.99
MFJ 498X Dlx CW keybrd w/disp, no keybrd	109.99
MFJ 552 CW interface for 2m HT	49.99
MFJ 722 SSB/CW notch filter	59.99
MFJ 940A 10m ant tuner/SWR/wattmeter	59.99
MFJ 959B SW receiver ant tuner w/preamp	89.99
MFJ 1532N 2m/440/1.2GHz 8.2' N vert base	79.99
MFJ 8400K 2m receiver kit	39.99
MFJ 8400W 2m receiver wired	59.99
MFJ 9115B 9015 Xcvr/tuner/ps/ant pack	269.99
MFJ 9117B 9017 Xcvr/tuner/ps/ant pack	249.99

Close-Outs - continued

	AES Price
MFJ 9120B 9020 Xcvr/tuner/ps/ant pack	269.99
MIR C-2522G 220 FM/SSB 25/200w amp/pre	519.99
MIR C-5012G 220 FM/SSB 50/120w amp/pre	259.99
MIR C-5022G 220 FM/SSB 50/200w amp/pre	499.99
MIR KP-2/10M 10m mast mount preamp	149.99
MOT 53543* Camouflage TalkAbt 250 FRS	59.99
***$15 consumer rebate from Motorola thru 12/31/01**	
MOT 53590* Blue TalkAbout 250 FRS	59.99
***$15 consumer rebate from Motorola thru 12/31/01**	
MOT 53592* Black TalkAbout 250 FRS	59.99
***$15 consumer rebate from Motorola thru 12/31/01**	
NCG RP-150 20A variable ps/lighted mtrs/fan	79.99
NCG RP-300 30A variable ps/lighted mtrs/fan	119.99
OUT Outrunner 150w PEP 9' 160-10m ant	329.99
PIP PK-2 16-digit TTP	59.99
PLY CS6-25 25' 6" copper strap	69.99
PLY CS6-50 50' 6" copper strap	139.99
PLY CS6-75 75' 6" copper strap	209.99
PLY IS-IE50LU-C1 50-500 dlx 375/125w bulkhead	79.99
RFA Match Alert VSWR monitor/alarm	79.99
RFA VFD-VHF 50-225Mhz 300w dig power/SWR	169.99
RFC 2-23 2m FM/SSB 2/30w amp/preamp	59.99
RFC 2/70 2m/440FM 3/30//5/20w HT amp	99.99
SGC 04-12 Remote kit w/swivel bkt & cable	149.99
SGC 04-13 Remote kit w/5-way mt & cable	239.99
SGC 52-32 Carbon telephone handset	119.99
SGC 54-16 SmartPro 200w 1.6-30 12v tuner	449.99
SON ICF-B200 AM/FM emergency radio/light/alarm	49.99
SON ICF-SC1 300 ch pocket scanner	179.99
SON ICF-SW1000TS AM/FM/SW Rcvr/tape/ANLP1	399.99
SON ICF-SW7600G AM/FM/SW port receiver	179.99
STR CAM-PHA-AES B&W pinhole TV cam/mic/ps	49.99
TRI MT-6+ 6 out console surge suppressor	49.99
UNI BCT-10 Pre-prog hiway info sys scan	79.99
UNI EXA-7950 900MHz cordless ph/dig ans mach	49.99
UNI EXS-9910 900MHz dig spread spec cordless	49.99
UNI Grant-LT SSB/AM Mobile CB	169.99
UNI HH-980 5w 90ch dlx marine handheld/WX alert	139.99
UNI MC-535 25w 90 ch VHF marine Xcvr	99.99
UNI MC-1010 25w VHF marine Xcvr	129.99
UNI MC-1020 25w VHF marine Xcvr	139.99
VEC PS-50F 35A power supply, 50A surge	139.99
YAE FC-1000 HF wire antenna tuner	199.99
YAE FEX-736-50 6m module; FT-736R	279.99
YAE FEX-736-220 220MHz module; FT-736R	309.99
YAE FEX-736-1.2 1.2 GHz module; FT-736R	539.99
YAE FNB-4A 500ma 12v battery; 09-series	62.99
YAE FNB-33 1200ma 4.8v battery; FT-11/51R	49.99
YAE FNB-38 600ma 9.6v battery; FT-11/51R	69.99
YAE FS-10 Deluxe mic for FT-8500	99.99
YAE FTS-22 CTCSS decode unit; FT-8100R	68.99
YAE FTS-27 CTCSS decoder unit; FT-100	47.99
YAE MH-27A8J TTP mic/modular plug; early 2500M	60.99
YAE MH-27B8 8-pin TTP mic; FT-5200/6200	65.99
YAE MH-29A2B LCD disp spkr/mic; 530/51R	49.99
YAE MH-39A6J Regular mic for FT-8500	49.99
YAE TCXO-2 TCXO unit; FT-990	49.99
YAE TCXO-8 TCXO unit; FT-100	89.99
YAE VC-22 VOX headset; FT-11/41/51R	49.99
YAE VXR-5000U/TC 25w 440 FM rptr/ps	1299.99
YAE VXR-5000V/TA 25w 2m FM rptr/ps	1299.99
YAE XF-110C 500Hz CW filter; FT-900	49.99
YAE XF-117C 500 Hz CW filter; FT-100	89.99
YAE YF-115S-01 2.75KHz Collins SSB filt; FT900	49.99
YAE YSK-8100 Rem separation kit; FT-8100R	69.99
ZEI 52 20 47 10x25 black binoculars	349.99
ZEI 52 40 07 7x45 black forest binoculars	929.99
ZEI 52 40 13 10x40 rubber armored binoculars	819.99
ZEI 52 56 59 8x56 black forest binoculars	1049.99

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IC728 HF XCVR/UI7(FM) 499.99mf
IC729 HF/6M XCVR/FM 699.99mcf
IC729 HF/6M XCVR/FM+ ...719.99c
IC729 HF/6M XCVR/FM+ ...699.99m
IC735 HF XCVR 499.99mcfv
IC735 HF/CW (NO DOOR) ...499.99f
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BC119(11) DESK CHGR 80.99mcf
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SMC34 SPM/MIC 34.99m
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MERIDIANXL GPS.....149.99m

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1289W MULTICOM/CABLE....53.99v
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5080 MFJ-YAE 8P CBL.....9.99m
5084 TNC/ICO 8P 13.99mc
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5086YH KAM HF KEN 8-PIN .12.99v
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9040 40M XCVR 139.99m
9130B 30M PACKAGE.....299.99m
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9406X 6M XCVR 224.99m
9420X 20M XCVR 199.99m
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22430 THROAT/MICROPHONE.29.99m
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75510 FRS RADIO..... .....59.99mc
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75510XLB FRS HT 59.99m

MIRAGE
B215G 2M 12/150W AMP ..299.99mf
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B23G 2M 2/30W AMP 119.99v
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B34 2M FM 2/30W AMP.....63.99c
B5016G 2M 50/160W AMP 239.99f
KP1/10M PREAMP 114.99m
KP1/2M PREAMP 109.99m
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KP2/2M MAST PREAMP.....149.99m
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RCI1000 /RB COMM HT.....79.99f
RCI2950DX 10/12M XCVR .224.99f
RCI2970DX 10/12M XCVR .359.99f
RCI900 MARINE XCVR 99.99m

RF CONCEPTS
UHF50 440 3W/50W AMP ..134.99f
VHF160 2M 1/60W.....99.99m
223 2M 2/30W AMP NEW.....89.99f

RF APPLICATIONS
P2000CW HF SWR/WATTMTR .152.99f

RMS
CN220 HF-220 METER.....89.99c

SANGEAN
ATS404 SWL 69.99mc
ATS818ACS SWL RX/TAPE ..199.99m
DT200V RCVR.....69.99m

SGC
04-01 SG2000 HF XCVR .1,439.99v
04-10 DSP/PWR TALK.....1,664.99f
54-22 SGC-239 TUNER 179.99c
5414 SG230 TUNER.....439.99m
5417 HF/6M SMARTUNER ..476.99v
5417 SG231 TUNER.....476.99c
7007 POWER CLEAR DSP ..249.99mv

SHAKESPEARE
495 MARINE ANT MOUNT.....15.99v

SOLARCON
GPK1 GND PLANE 35.99c

SONY
AN102 ANTENNA.....69.99m
ICFB200 SWL RCVR.....44.99m
ICFSC1 HANDHELD SCANNER 159.99f
ICFSC1PC SCANNER.....239.99m
ICFSW07 SWL RCVR 359.99mcv
ICFSW12 SWL RCVR 89.99m
ICFSW30 SWL RCVR 69.99mc
ICFSW33 SWL RCVR 134.99m
ICFSW35 SWL RCVR 80.99c
ICFSW55 SWL RCVR 299.99m
ICFSW7600G SWL RCVR 159.99m
ICFSW77 SWL RCVR 419.99cv

STANDARD
CNB173 BATTERY.....84.99m
CTN5600 TONE UNIT.....14.99m

TERK
TV42 TV ANTENNA 69.99m

TIMEWAVE
ANC4 NOISE CANCELLER...179.99mf

UNIDEN
BCT10 SCANNER 49.99m
BCT2 BEAR TRACKER 49.99m
BC147XLT SCANNER.....80.99c
BC178XLT SCANNER.....79.99mc
BC245XLT SCANNER.....199.99m
BC3000XLT 400CH 329.99mc
BC780XLT SCANNER.....329.99m
EHD1200GB HARLEY PHONE ..34.99mc
ESP 26 SPEAKER 15.99c
MC1010 MARINE XCVR.....114.99m
PC66XL CB XCVR 69.99c
PRO340XL CB HT.....14.99mf
SC150 SCANNER 143.99c
SC180B SCANNER.....169.99f

VALOR
MM270B 2M/440 MAG MT ANT 44.99m

VAN GORDEN
8X6ST 6FT RG8X/PL259'S.....9.99v

VANCO
PHW5 SPEAKER 5.99c
370052 DIGITAL MULTIMETER 19.99c

VECTRONICS
AT100 ACTIVE ANTENNA 64.99mv
HF600QSK AMPLIFIER.....1,319.99m
HPF1 FILTER 14.99m
PM30UV VHF/UHF MTR 79.99v

VERTEX
VHF LMR HT/ NO CHGR.....149.99m
VX200(1)X LMR HT/NO CHG.199.99m
VX200(4)X LMR HT/ NO BATT 199.99m
VX200(4)X LMR HT/ NO CHG 279.99m

VIBROPLEX
100 ORIG PRESENTATION ..239.99m

WINEGARD
LB2000 DUAL LNB.....69.99m

W2AU
KW80F TRAPS.....43.99v

X10
DS7000 SECURITY SYSTEM .139.99m
SP-554A WIRELESS MOTION DET 26.99v

YAESU
ADMS3 SOFTWARE.....34.99m
ATAS100 ANTENNA.....289.99m
CA10 CHG ADAPT 11.99mv
CN3 BNC/SMA ADAPTOR.....7.99c
CSC67 CASE.....16.99v
CSC69 FOR FNB40 .....13.99m
CSC71 CASE.....14.99m
CSC76 CASE FOR VR120.....17.99c
DLX BASE RCVR/CELL BLK 799.99v
EDC12 DC ADAPTER 34.99m
EDC5B CIG CORD.....24.99c
FBA20 BATTERY PACK 17.99m
FC10 TUNER.....339.99m
FH1 CONTROLLER.....79.99m
FNB31 BATTERY 41.99m
FNB42 BATTERY 56.99m
FRG100B 1.8-30 MHZ RX..499.99mv
FTS7A TONE UNIT 34.99m
FT1000D DLXHF XCVR 3,599.99f
FT1000MPMKV HF XCVR .2,749.99m
FT1500M 50W 2M XCVR 166.99c
FT23RMKII HT.....134.99m
FT2600M 2M XCVR 197.99f
FT3000M XCVR/DVS4 .....389.99m
FT3000M 2M XCVR.....359.99f
FT33R HT.....224.99m
FT33R 220MHZ HT.....269.99c
FT411MKII 2M HT 143.99c
G450A ROTOR 233.99v
G800SA MED/HD ROTOR....306.99v
LL5 PATCH.....114.99m
MD100A8X DESK MIC 116.99c
MH34B4B SPEAKER/MIC 27.99v
MH37A4B SPKR/MIC.....27.99m
NC55B CHARGER 11.99v
NC60B ADAPTER 9.99mf
SP767 SPKR 119.99m
VC25 HEADSET.....54.99m
VR500 WIDEBAND RCVR....269.99mf
VR5000 WIDE BAND RCVR.799.99v
VXA10016/41B ACRFT HT..332.99f
VXA5000V/TA 2M RPTR ..1,259.99f
VXD40UB DUPLEXER 179.99f
VX1R 500mW 2M/440HT ...139.99m
VX150 2M 5W HT.....143.99fv
YF112C CW FILTER 107.99fv
YF115S02 SSB FILTER 143.99c
YH1 HEADPHONES.....34.99m
YSK7100 SEP/KIT 62.99c

A portion of the Used Equipment inventory in Milwaukee

Fully Tested and Ready to Go!

A portion of the Demo Equipment Inventory in Milwaukee

Current Manufacturer Instant Coupons are applicable to Demo radios.

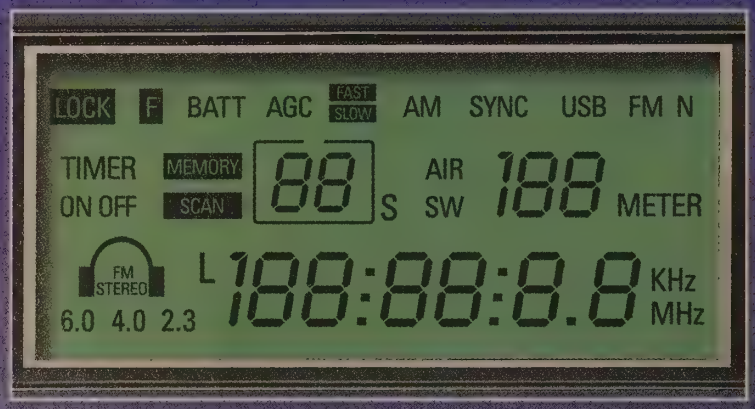
Please used these lists as a guide only...

Used and Demo Equipment Lists are compiled from an actual inventory as of 9/10/2001. However, due to turnover from daily selling and trading, the actual items listed may or not be available.

Each of our stores are linked via computer which allows real time access to our ever changing inventory. For your needs, you may call any of our locations to check for availability or to discuss an alternative with one of our salespersons.

Used and Demo Equipment Lists are also available on our web site and are updated every week. (www.aesham.com)

The Ultimate in Digital Technology



The LCD
Two Bold, Brightly Illuminated 6" by 3 1/2" Liquid Crystal Display shows all important data: Frequency, Meter band, Memory position, Time, LSB/USB, Superimposed Detector, and more.

The Signal Strength Meter
Elegant in its traditional Analog design, like the gauges in the world's finest sports cars. Large, Well Lit, Easy to read.

The Frequency Coverage
Longwave, AM and shortwave continuous 100-30,000 KHz. FM, 87-108 MHz VHF Aircraft Band, 118-137 MHz.

The Tuning Controls
• For the traditionalist, a smooth, precise tuning knob, produces no audio muting during use. Ultra fine-tuning

of 50Hz on LSB/USB, 100Hz in SW, AM and Aircraft Band and 20 KHz in FM
• For Fixed-step Tuning

fast, responsive Up/Down tuning buttons.
• For direct frequency entry: a responsive, intuitive numeric keypad.

The Operational Controls
Knobs where you want them. Buttons where they make sense. The best combination of traditional and high-tech controls.

The Sound
Legendary Grundig Audio Fidelity with separate bass and treble controls, big sound from its powerful speaker.

and FM-stereo with the included high quality headphones.

The Many Features
- 70 user-programmable memories
- Two, 24 hour format clocks
- Two ON/OFF sleep timers
- Massive, built-in telescopic antenna
- Connectors for external antennas: SW, AM, FM and VHF Aircraft Band
- Line-out, headphone and external speaker jacks

The Technology
Today's latest engineering:
- Dual conversion superheterodyne circuitry
- PLL synthesized tuner

The Power Supply
A 110V AC adapter is included for North America (a 220V AC adapter is available upon request). Also operates on 6 size D batteries. (not included)

Dimension: 20.5" L X 9" H X 8" W

Weight: 14.50 lbs

THESE ARE THE SATELLIT 800 MILLENNIUM'S MAJOR FEATURES. FOR A DETAILED SPECIFICATION SHEET, CONTACT GRUNDIG.

by GRUNDIG

Lextronix / Grundig, P.O. Box 2307, Menlo Park, CA 94026 • Tel: 650-361-1611 • Fax: 650-361-1724
Shortwave Hotlines: (US) 1-800-872-2228 (CN) 1-800-637-1648 • Web: www.grundigradio.com • Email: grundig@ix.netcom.com

GRUNDIG Best in Technology

Yacht Boy 400 Professional Edition (YB 400PE)

The most powerful compact Radio AM/FM Shortwave Receiver.

"The Best compact shortwave portable we have tested"
Lawrence Magne–Editor in Chief, Passport to World Band Radio

The Big Breakthrough! Power, performance, and design have reached new heights! The Grundig 400 Professional Edition with its sleek titanium look is packed with features like no other compact radio in the world.

Pinpoint Accuracy! The Grundig 400PE does it all: pulls in AM, FM, FM-Stereo, every shortwave band (even aviation and ship-to-shore)-all with lock-on digital precision.

Ultimate Features! Auto tuning! The Grundig 400PE has auto tuning on shortwave and stops at every signal and lets you listen. With the exceptional sensitivity of the 400PE, you can use the auto tune to catch even the weakest of signals.

Incredible timing features! The Grundig 400PE can send you to sleep listening to your favorite music.

You can set the alarm to wake up to music or the morning traffic report, then switch to BBC shortwave for the world news. The choice is yours!

Powerful Memory! Described as a smart radio with 40 memory positions, the Grundig 400PE remembers your favorites–even if you don't!

Never Before Value! Includes deluxe travel pouch, stereo earphones, owner's manual, external antenna and a 9 volt Grundig AC adapter. Uses 8 AA batteries (not included).

Style • Titanium look

Shortwave, AM and FM • Continuous shortwave from 1.6 - 30 Mhz, covering all existing shortwave bands plus FM-stereo, AM and Longwave. • Single sideband (SSB) circuitry allows for reception of two-way communication such as amateur radio, military, commercial, air-to-ground, and ship-to-shore.

Memory Positions • 40 randomly programmable memory positions allow for quick access to favorite stations.

Multi-function Liquid Crystal Display • The LCD simultaneously displays the time, frequency, band, alarm and sleep timer.

Clock, Alarm and Timer • Two alarm modes: Beeper and radio. • Dual clocks show time in 24 hour format. • Sleep timer programmable in 10 minute increments.

Dimensions: 7.75" L X 4.5" H X 1.5" W
Weight: 1 lb. 5 oz

Power and Performance with the Affordable Yacht Boy 300 Professional.

Designed for the traveller, the titanium look digital radio provides incredible power and performance for an incredibly low price! Packed with features, this radio is an excellent value, accompanied with 3 AA batteries, AC adapter, earphones, supplementary Antenna and carrying case!

State-of-the-art features include:

- Digital tuning with 24 user-programmable memory presets
- 13 SW Bands (2.30-7.80 MHz, 9.10-26.10 MHz)
- Illuminated multifunction LCD display screen
- AM/FM stereo via earphones
- Clock, alarm and 10 to 90 minute sleep timer
- Digital tuning display
- Direct frequency entry
- DX/ local selector
- Titanium look finish
- External antenna jack
- Dynamic micro speaker
- Earphone jack
- Telescopic antenna

Dimensions: 5.75" L X 3.5" H X 1.25" W

Weight: 9.92 oz

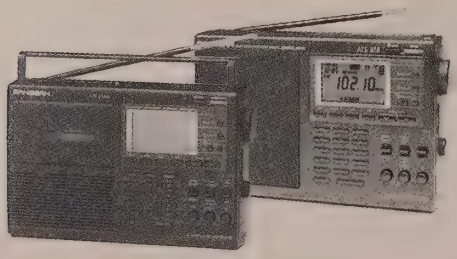
by GRUNDIG

Lextronix / Grundig, P.O. Box 2307, Menlo Park, CA 94026 • Tel: 650-361-1611 • Fax: 650-361-1724
Shortwave Hotlines: (US) 1-800-872-2228 (CN) 1-800-637-1648 • Web: *www.grundigradio.com* • Email: *grundig@ix.netcom.com*

SANGEAN™

ATS-404 Full Performance, Full Featured Digital, AM/FM Stereo Shortwave Receiver CONTINUOUS COVERAGE – tunes continuously all shortwave bands and any frequency in between. AM reception with 9k/10k switch, FM plus FM stereo with earphones. Keypad entry and auto and manual search buttons, 45 memory presets, auto memory scan. Illuminated LCD display, tone control, lockswitch. Dual time (12/24 hour) clock and adjustable sleep timer with new Human Wake System. Carrying case and stereo earbuds included. Uses four "AA" batteries. 6.5"w x 4"h x 1.25"d **$89.99**

ATS-505 Professional Digital Multi-band Receiver • AM/FM stereo/shortwave and SSB reception • Continuous coverage – tunes all shortwave bands and any frequency in-between • Auto memory scan – scans 45 presets, playing each in sequence • Auto preset system – determines all memory presets based on signal strength of station • Fine tuning • 9/10kHz switch • Lockswitch • Tone control • Local/DX switch • Dual time clock – 12/24 hour display, adjustable sleep timer and Human Wake System with repeating beep tone (volume increases every 15 sec.). Includes carrying case and earphones..... **$129.99**



ATS-818CS *(left)* **World Band Receiver with Programmable Cassette Recorder** 16 bands, continuous coverage 50kHz to 30MHz. AM/SSB/CW/FM modes; stereo via headphones, 45 memory presets. Tuning methods: Direct input, auto or manual scan, memory recall, rotary dial. AM wide or narrow filter, tone and RF gain controls, signal strength and battery indicator. Programmable cassette recorder, play and record LED indicator, auto-stop feature. Clock with dual time display, alarm and sleep timer. Uses seven "AA" batteries (not included). Includes AC adapter and external antenna adapter. 11.5"w x 7.75"h x 2.75"d, 5 lbs **$229.99**

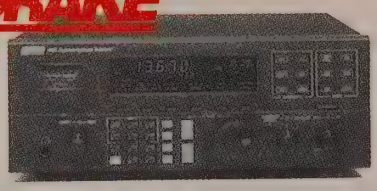
ATS-818 *(right)* **World Band Receiver** All features of the ATS-818CS, w/out cassette recorder **$179.99**

ATS-606A Compact Digital All Band World Receiver *(left)* Continuous All Band coverage 153kHz-30MHz. AM/FM (FM stereo with earphones). 54 memories, manual or keypad tuning, 1khz/step fine tuning, scanning, LCD display. Dual time clock and sleep timer. 5.75"w x 3.5"h x 1.25"d.. **$149.99**

ATS-909 FM-Stereo/MW/LW/SW PLL Synthesized Receiver *(right)* Five tuning methods: Direct frequency, Autoscan, Manual, Memory recall and Rotary, 307 memories. Stereo via earphones, SSB reception. MW 9k/10k switch. AM wide/narrow filter and FM mono/stereo selector. Dual time with three timers and sleep timer. Clock feature displays 42 city times. RF gain/tone controls. Lock switch, recorder output jacks, battery and signal strength indicator. Uses 4 AA batteries or 6V DC; AC adapter incl. 8.5"w x 5.375"h x 1.375"d, 1.9 lbs.... **$269.99**

DT-200V Broadcast and TV Band Receiver (left) Fits in shirt pocket or clips to belt. Covers AM and FM broadcast bands (FM stereo via headphone), plus the audio portion of TV channels 2 to 13. LCD display, up and down tuning buttons, auto-scan, 19 memories, automatic shut-off, built-in speaker. Belt clip and stereo earphones included. Uses two "AA" batteries. 4.375"h x 2.625"w x .75"d, 5 oz..... **$69.99**

DRAKE



R-8B Communications Receiver Covers 10kHz-30MHz (35-55MHz, 108-174MHz with optional VHF converter) • Dual VFOs • 1000 memories • Multi-function scanning • AM/FM/RTTY/CW/LSB/USB modes • 5 voice bandwidth filters • Built-in receive preamp/attenuator & noise blanker • S-meter • Passband offset • Selectable AGC • Built-in speaker • Multiple antenna inputs • Sequential tuning • 3 selectable tuning step sizes • Keypad entry of mode & bandwidth • Selectable sideband • Synchronous AM detector • RS-232 computer control • Optional interface software for MS-DOS • Speaker/recorder connections • Multi-voltage power supply • 13½"w x 5¼"h x 13"d, 13 lbs **$1379.99**

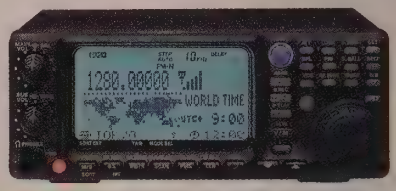
1590 VHF Converter *(left)* 35–55MHz and 108-174MHz..... **$249.99**

MS-8 External Speaker *(right)* for R-8B **$49.99**

YAESU

VR-500 High Performance Mini Receiver General coverage 100kHz-1300MHz (cell blocked) • CW, SSB, LSB and USB, AM and FM wide/ narrow modes • Includes AM/FM broadcast, HF shortwave up to 16MHz, VHF/UHF TV bands, VHF AM aircraft band, and a wide range of commercial/public safety frequencies • Keypad entry • 1000 memory channels • 100 "skip" memories • 10 search memories • 100 dual watch memories • Priority • Powered by 2 "AA" alkalines or 9-16V DC • 2.2"w x 4.2"h x 1"d, 7 oz..... **$199.99**

FRG-100B High Performance Communications Receiver Covers 50kHz-30MHz – CW, SSB, AM modes; FM optional. 50 tunable memory channels and two band edge memories. Multi-function scanning. Adjustable SSB carrier offset, selectable AGC rate, noise blanker, all mode squelch, RF attenuator, twin 12 and 24 hour programmable clocks with on/off timer and sleep-timer, CAT system for PC control. Bright backlit LCD readout with adjustable control. 120/240 VAC or 12-14VDC @ 1.2A 9.375"w x 3.5"h x 9.5"d, 6.6 lbs *(See Price Guide for optional filters and high-stability oscillator)* **$479.99**



VR-5000 Multimode Scanning Receiver Continuous frequency coverage from 100kHz to 2.6GHz (cellular blocked) • Direct keypad frequency entry and a wide variety of scanning capability • 2000 memory channels, 100 memory banks with alphanumeric labels • Dual receive • Bandscope graphical activity monitor • "Smart Search" automatic memory loading feature • World clock with time zone map • 13.5VDC @ 0.7A • 7.1"w x 2.75"h x 8.0"d, 4.2 lbs..... **$699.99**

VR-120 Mini Communications Receiver – Provides general coverage receive from 100kHz to 1299.995 MHz (cell blocked) on AM/FM wide & narrow modes; coverage includes the AM and FM broadcast bands, HF shortwave bands, VHF/ UHF TV bands, VHF AM aircraft band, and a wide range of commercial and public safety frequencies. • Rugged outdoor-ready case construction • Ultra-long battery life • BNC-type antenna connector • Straight-forward 4-button operation • Wide-band frequency coverage with easy access • Special "preset mode" aids in quick tuning • Super simple one-touch memories • Versatile 640 channel memory system • Wide selection of scanning modes • 3.3"h x 2.3"w x 1"d, 6.9 oz..... **$129.99**

Order Toll Free at 4 Locations Nation-Wide 1-800-558-0411 WI
Browse Our Store On-Line at www.aesham.com

SONY

WORLD BAND RADIOS

ICF-2010 PLL synthesized • Range: 150kHz–30 MHz, 76-108MHz FM and 116-136MHz air band • 32-station memory • Manual, auto and memory scan tuning • SSB/CW and AM synchronous detection • Switchable IF bandwidth • Programmable timer • Built-in clock with alarm, standby and sleep timer • Requires 4.5V DC or three "D" cells • Includes 120V adapter, earphone, SW external antenna, connector and handbook • 11.3"w x 6.3"h x 2.1"d, 3.75 lbs **$359.99**

ICF-SW07 PLL synthesized • FM 76-108MHz, SW 1621kHz-29.999 MHz, MW 530-1620kHz, LW 150-529kHz • FM stereo at headphone jack • SSB/CW, AM synchronous detection • SW station call, my-memory tuning plus four other tuning methods: direct manual, scan or preset • 3000 frequency memories • One-push access to 8 major stations (BBC/VOA/DW, etc.) • Station labels with label editing • 24-city name/time display • Built-in timer • Clock with sleep timer and alarm • Requires 3 VDC or 2 "AA" batteries • 5.3"w x 1.2"d x 3.6"d, 9.1oz • Includes external active antenna module, AC adapter; stereo earphones, leather case..... **$399.99**

ICF-SW11 Compact • 12 bands including FM stereo, MW, LW and SW bands 1–9 • Easy analog tuning with LED indicator • FM stereo headphone jack for private listening in noisy environments • DC in-jack for optional AC adapter • 6.5"w x 3.75"h x 1.3"d..... **$49.99**

ICF-SW12 11 bands, including FM, AM and SW bands 1–9 • Designed for travel – compact size with protective lid • World time clock and universal time coordinator to calculate time in cities worldwide • Backlit LCD display • LED tuning Indicator for precise center-frequency indication and accurate tuning • Built-in alarm w/convenient snooze button • Requires 2 "AA" cells • 4.3"w x 3.1"h x 1.2"d . **$99.99**

we have a

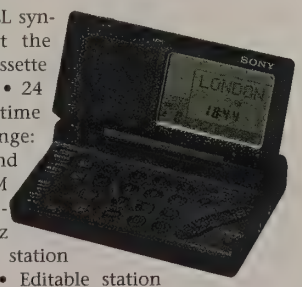
SECURE web site

at www.aesham.com

ICF-SW35 PLL synthesized, dual Conversion super hetrodyne • Range: AM (530-1710 kHZ), FM (76-108 MHz) • FM stereo at headphone jack • Shortwave from 2250kHz-26.1MHz • UP/DOWN tuning buttons 1kHZ/5kHz tuning steps in shortwave • 50 memory presets (5 banks of 10 presets each) • 1 or 5 kHz step tuning on SW • Memory scan • Built-in digital clock with two wake times and 60-minute sleep timer • Dial illumination button, lock switch, attenuator • 2.5" speaker plus earphone jack • Includes cloth protector and SW guide • Requires 3V DC or two "AA" cells • 6.7"w x 4.5"h x 1.4"d, 16 oz **$89.99**

ICF-SW40 PLL synthesized • Analog/digital tuning • 14 bands • Range: LW/AM/SW (3850kHz-26.1MHz) and 76-108MHz FM (FM stereo-to-headphone jack) • 20 station memory presets • 1kHz step tuning • Built-in clock with dual standby function • 6.75"w x 4.25"h x 1.6"d, 15 oz **$129.99**

ICF-SW77 PLL synthesized • Electronic rotary tuning • Preset, 10-key direct, manual and scan tuning • Range: 150kHz–30MHz and 76-108MHz (FM stereo-to-headphone jack) • 50Hz tuning steps • Clock display • 5-event programmable timer • Sleep timer • 162 memory presets with station name tuning • SSB/CW and AM synchronous detection • Backlit LCD display • World time scale • Large, 5"x 3" speaker • Requires 4 "C" cells • Includes 120V adapter, earphones, belt and wind-up antenna • 10.8"w x 6.8"h x 1.8"d, 3.3 lbs **$469.99**

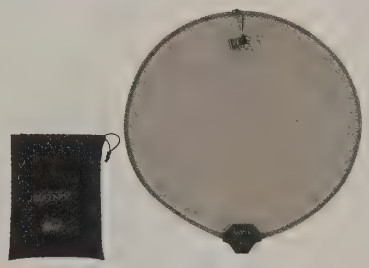


ICF-SW100S PLL synthesized • About the size of an audio cassette – ideal for travel • 24 city name and time display • Range: 150kHz–30MHz and 76-108MHz FM (stereo-to-headphone jack) • 1kHz step tuning • 50 station memory presets • Editable station labels • Auto scan, manual and 10-key direct access tuning • Built-in clock with sleep timer and dual standby • Includes stereo headphones, 120 VAC adapter, active antenna and soft carrying case • Requires 3V DC or two "AA" cells • 4.3"w x 0.9"h x 2.8"d, 8 oz **$349.99**

ICF-SW1000T PLL synthesized • 1 kHz step tuning • Range: 130kHz–30 MHz and 76-108MHz FM (stereo to headphone jack) • Built-in stereo cassette recorder with auto-reverse and timer record • SSB and synchronous AM detection • 32 memory presets • Built-in clock with alarm, dual standby and sleep timer • Requires 3VDC or 3 "AA" cells • Includes vinyl case, stereo earphones, hand strap and wind-up antenna • 7"w x 4.25"w x 1 6"d, 1 lb... **$399.99**

ICF-SW7600G *(left)* PLL synthesized • Manual and auto scan 1kHz step tuning •10-key direct access tuning • Range: 150kHz–30MHz and 76-108MHz FM (stereo-to-headphone jack) • 22 station memory presets • Dual conversion superhet • SSB/CW and AM synchronous detection • Multi-function LCD digital readout • Dial light and LED tune indicator • Built-in clock with sleep timer and dual standby functions • Record output jack • 9/10kHz MW tuning switch • External antenna jack • Large 3" speaker • Requires 6V DC or four "AA" cells • Includes vinyl case, wind-up antenna and shortwave handbook • 7.6"w x 4.75"h x 1.3"d. 1 lb., 5.5 oz..... Closeout **$179.99**

ICF-SW7600GR *(right)* Same as 7600G above with the addition of • Hold button preventing accidental changes to presets • 100 station memory presets • World time clock/dual clock..... **$179.99**



AN-LP1 Active Antenna Enhances sensitivity for clearer reception of even weak signals. • Light weight • Provides high sensitivity and noise reduction • Active antenna controller with rotary tuning • 19" loop that folds to 7" for portability • Easy to mount • Includes soft carrying case **$89.99**

Used & Demo

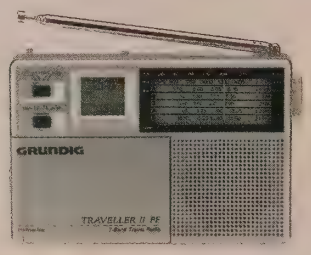
Equipment lists

Updated regularly on the web.

Check them out and order **On-line**

GRUNDIG

G-2000A Porsche Design Shortwave Radio Designed for Grundig by F.A. Porsche, This radio has a titanium finish look with a genuine leather case that closes around the radio like a book and serves as a stand. • Ranges: (FM) 87.5–108MHz; (MW) 530–1710kHz; (SW) 2.3–7.4 and 9.4–26.1MHz • Modes: AM, FM-stereo (with earphones) • Illuminated multifunction LCD display • Digital keypad and Up/Down manual tuning • 20 user-set station memorie • Clock with 12 or 24 hour selectable format, alarm (radio or buzzer) and sleep timer (10-90 minutes) • Built-in telescopic antenna for FM/SW and ferrite bar for AM • 5.5" x 3.5"h x 1.25"d, 7.2 oz. • Includes a leather case, earphones, requires 3 AA batteries ..... **Milwaukee only $99.99**



TRAVELLER II P 7-band Worldtime Travel Radio Compact size, outstanding performance. AM, FM and five international shortwave bands. A dual clock simultaneously displays local time and other major cities, world wide. Titanium finish look. • Ranges: (FM) 88–108MHz; (MW) 530–1600kHz; (SW) 49, 41, 31, 25 and 19 meters • Modes: AM, FM • Manual tuning • LCD clock display • Analog tuning dial • Dual time clock with alarm and sleep function • Built-in telescopic antenna for FM/SW and ferrite bar for AM • 5.5" x 3.5"h x 1.25"d, 10 oz. • Includes earphones, 3 AA batteries, soft pouch and Shortwave Listening Guide **Milwaukee only $49.99**

E-TRAV VII

E-Traveller Digital Radio Palm-size, only 4.5" x 2.563" x 0.875" and weighing 5.3 oz. A sleek, smooth design that fits into your pocket, briefcase or purse. Titanium color with black accents, combined with rich, rubberized side panels. Superior dual conversion superheterodyne circuitry for optimal sensitivity and selectivity. • Ranges: (FM) 87.5–108MHz; (MW) 530–1710kHz; (SW) 2–30MHz continuous coverage • Modes: AM, FM-stereo (with earphones) • LCD display • Up/Down digital controls with autoscan and manual tuning • 30 memories with memory scan • Clock with 12 or 24 hour selectable format, alarm (radio or beeper) and sleep timer • Built-in telescopic antenna for FM/SW and ferrite bar for AM • Includes a carrying pouch, 2 AA batteries, Shortwave Listening Guide..... **Milwaukee only $129.99**

AOR®

AR-16B Wide Band Handheld Scanning Receiver 500KHz to 1300 MHz (cellular blocked) • Modes: AM, FM-w, FM-n • 500 memory channels, 5 banks • 25 scan search banks • Scans 20 channels per second • Preset 21 frequency band settings • Automatic squelch • S-meter • Monitor function for weak signals • Back-lit keypad and display • Includes antenna, two alkaline batteries, handstrap, manual • 2.4"w x 4.2"h x 1.2"d, 5.4 oz... Closeout **$199.99**

AR-8200B All-Mode Wide-Band Modular HT Receiver • 500kHz to 2040MHz (cell blocked) • 1000 memory channels • Alphanumeric display • FM-w, FM-n, super narrow AM, AM-w, AM-n, USB, LSB, CW • Program-mable tuning steps • Spectrum display scope function • Computer control with downloadable software • Optional cards for memory expansion • Noise limiter • Attenuator • CTCSS squelch/search, tone eliminator • Records or plays 20 sec. of audio • Battery saver • Uses 4 AA NiCad batteries (supplied), alkalines or external 12V • 2.4"w 5.7"h x 1.0"d, 0.75 lbs..... Closeout **$479.99**

AR-8200 MK II-B Same as above model with the addition of • New temperature compensated crystal oscillator for greater frequency stability • Brighter backlit display • Telescopic antenna • 1100mAh high capacity NiCad batteries **$549.99**

AR-8600B Receiver Use anywhere - mobile, base or transportable. Powered from an external 12V DC power supply, optional DC lead from a 12V vehicle or from and optional internal NiCad battery pack (Special Order). All mode receive capability including SSB with programmable tuning steps down to a resolution of 50Hz. An RS-232 port with free supporting control software available from the AOR web site. • Coverage: 530kHz–2040MHz (cell blocked) • 1000 memory channels (20 banks), 1 priority channel • All mode reception with super narrow FM plus wide • True carrier re-insertion in SSB modes • New front end with RF preselection of mid-VHF bands • Detachable MW bar antenna • Tuning steps programmable in multiples of 50Hz in all modes, 8.33 kHz airband step correctly supported • Step adjust frequency, AFC • Noise limiter and attenuator • Versatile band scope with save trace facility • Twin frequency readout with bar signal meter • Separate volume and squelch controls • Write protect and keypad lock • Programmable scan and search • RS-2332 computer port • Flash-ROM memory (no battery required) • Slot card sockets • BNC socket for 10.7MHz output **$869.99**

AR-5000B

High Performance Wide-Band Receiver 10kHz to 2600MHz (cell blocked) • 1000 memory channels and 20 search banks with EEPROM storage • Multiple IF bandwidths • Scans 45 channels per second • AM, FM, LSB, USB, CW modes • Triple conversion IF stage • RS-232C port • 20 search banks • Manual tuning dial • N-type and SO-239 antenna connectors • 12VDC @ 1A, adapter included • 8"w x 4"h x 10"d, 4 lbs ..... **Special Order $1899.99**

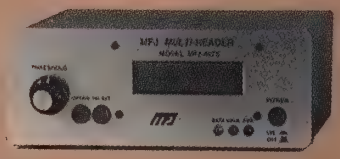
AR-3000AB All-Mode High Per-formance Professional Monitor 100KHz-2036MHz (cell blocked) • 400 memory channels • FM-w, FM-n, AM, USB, LSB, CW • Tri-conversion IF stage • Scans 50 channels per second rate • RS-232C port for computer control • 4 search banks • Manual tuning dial • BNC antenna connector • Scans 20 channels per second • 5.4"w x 3.1"h x 7.9"d, 2.4 oz..... **$1099.99**

SDU-5500

Spectrum Display Unit Visually identify signals and relative strength • Works with AR-5000B/AR-3000AB, ICOM base and other receivers with a 10.7MHz IF output • 10MHz bandwidth – 10kHz to 2600MHz • 5kHz/30Hz resolution • White/blue mono LCD..... **$1099.99**

MFJ

752C SSB/CW Audio Filter Pull out stations fro noise and interference. Peak, notch, low or high pa control helps eliminate hetrodynes and interferenc Filters tune 300 to 3000Hz; bandwidth varies fro 40Hz to almost flat; notches to 70dB. Switchab inputs for two radios. Uses 9 to 18VDC or 110VA with MFJ-1312B. Size: 10"w x 2"h x 6"d..... **$89.9**



462B Multi-Reader Easily decodes CW, RTT ASCII, AMTOR signals from amateur, commerci military, weather, aero and marine. Displays deco ed messages on a 16-character LCD display. Simp plugs into receiver phone jack. Requires 12V D Size: 5.5"w x 2.5"h x 5.5"d **$169.9**

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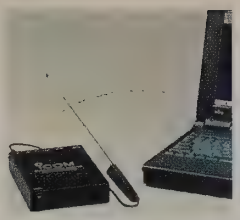
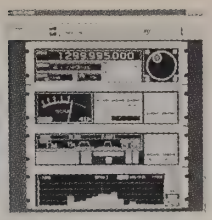
ICOM

R-75 **HF + 50MHz Receiver** Covers a wide frequency range from 0.03-60MHz and includes 101 memory channels. All mode– USB, LSB, CW, RTTY, AM, S-AM and FM. Alphanumeric readout with digital bar S-meter. Conventional tuning plus numeric key pad for direct input. Features include high stability receiver circuit, superior dynamic range, 2-level preamp, noise blanker, synchronous AM detection, twin PBT capability, front mounted speaker, filter options and optional UT-106 DSP. Operates from 13.8V DC @ 1.1A, or supplied AC adapter. 9.5"w x 3.75"h x 9"d, 6.6 lbs **$569.99**

R-8500-02 **Wide Band All Mode Receiver** Covers 0.1-2000MHz (cell blocked) with 10Hz resolution. All modes: AM, FM, WFM, SSB, CW and optional TV-R7100 TV/FM adapter. Direct keyboard entry. Versatile scan functions; 1000 tunable multi-function memories; 20 banks of 40 channels plus auto-write and skip areas. 20 scan edge memory channels store 10 sets of frequencies for programmed scan, plus priority. Selectable AGC, noise blanker, tone, squelch, record jack. Selectivity: 500Hz, 2.3, 6 and 15kHz. RS-232C interface. Voice synthesized readout optional. 110/220V AC. 11.875"w x 4.875"h x 10.875"d, 16.5 lbs..... **$1439.99**





PCR-1000-02 **Communications Receiver Computer** Turn a PC into a world-wide communications receiver. Connect the PCR-1000-02 to a lap/desktop IBM-compatible for reception of a wide range of frequencies. Listen to favorite stations in the background while running other applications. 100% PC hardware external, IBM PC compatible. Everything needed to connect to your computer included: power supply, built-in speaker, antenna, RS-232 cable and software • Frequency Coverage: 0.01000-823.999999MHz, 849.000001-868.999999 MHz, and 894.000001-1300.00MHz (Cell blocked, specifications guaranteed 0.5-1300MHz, only) • WFM, FM, AM, SSB, CW • 1000 mem. channels per file • Requires IBM® compatible; Windows®3.1 or 95; Intel 486DX4 or better; 10MB HD free space; 16MB RAM; FD drive, RS-232C (38400 bps or faster) serial interface; 640 x 480 display..... **$349.99**

PCR-100-12 **Communications Receiver Computer** Wide frequency coverage: 0.01-1300MHz (cell blocked). Listen to marine, shortwave, CB, amateur radio, FM, TV audio, commercial radio, satellites, aviation, etc. • Easy to use with 2 selectable control panels • AM, FM, WFM modes • CTCSS decode • Tunable bandpass filter • 13 tuning steps • Band scope • 20 banks of 50 memories each • Stereo audio output • Auto noise limiter • RF attenuator • Digital S-meter • S-meter squelch • Includes wire antenna, OPC-743 serial cable, AC adapter and receiver software • Requires Windows 95/98, 486DX4 or better, 10MB free HD space, 16MB memory, serial interface (38400bps), 640 x 480 resolution..... **$249.99**

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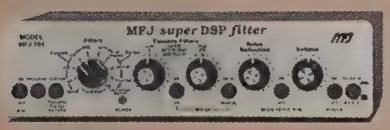
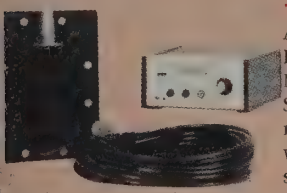
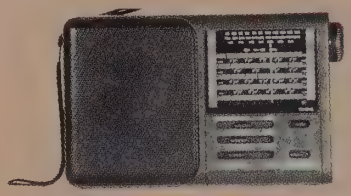


84B **Super DSP Filter** Eliminates those hetro-ynes; reduces noise and interference on SSB/CW/ M, digital modes, VHF, EME, satellite. Tunable FIR lters minimize ring, prevent data errors. Up to 0dB attenuation. Tunable Spotting Tone™ auto ines CW filter in narrowest bandwidth. 2W audio mp with AGC. 12V DC or 110VAC with MFJ-1315. 5"h x 9"w x 6"d..... **$229.99**



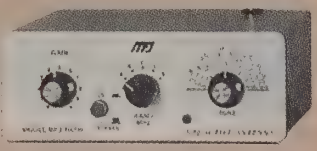
1024 **Outdoor Active Antenna** For 50kHz to 30 MHz reception. Separate RF amp module with 54" whip mounts outside, interconnect ade by supplied 50' coax to control unit, contain-g gain control and 20dB attenuator. Switches lect between two receivers and auxiliary antenna. D indicator. Auxiliary in/output jacks. 12VDC or 0VAC with MFJ-1312. Control unit: 6"w x 2"h x d, Outside module: 3"h x 4"w x 4"d..... **$129.99**

959B **Antenna Tuner and Pre-amp** For 1.6-30MHz, provides an impedance match between antenna and receiver for best reception. 20dB gain pre-amp and 20dB attenuator. Two antenna inputs for two receivers. 9-8V DC or 110V AC with MFJ-1312 adapter. 5"w x 2"h x 6"d..... Closeout **$89.99**

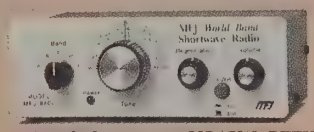


8121 **World Band Receiver** Receives FM, medium wave, long wave and 18 shortwave bands. Sony integrated circuit design provides excellent sensitivity and selectivity. Built-in telescopic antenna. LED tuning indicator. World time zone and frequency charts on back panel. Built-in 3" speaker. 4.5"h x 7"w x 1.5"d Works on 6V DC or 4 AA batteries.... **$39.99**

956 **LW/MW/SW Pre-selector/Tuner** Improves reception of signals from 150kHz to 30MHz. Boosts signals while rejecting images, intermodulation, other phantom signals. 2"h x 3"w x 4"d..... **$49.99**

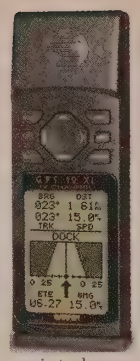


1020C **Indoor Active Antenna** Covers 300 kHz–30MHz; 5 bands. Telescoping (21") antenna provides good signal strength. Functions as a pre-selector when using an external antenna – minimizes intermod, improves selectivity, reduces noise. Uses 9V battery, 9-18V DC or 110V with MFJ-1312B. Size: 5"w x 2"h x 6"d..... **$79.99**



8100W **Regenerative** 10' wire brings stations world-wide loud and clear. Tune international shortwave, SSB/CW, RTTY and packet. Covers 75-13M SW bands. Vernier drive tuning. Uses 9V battery, earphones or plug-in speakers. 7"w x 2.5"h x 6"d, 1 lb..... wired **$89.99**

GARMIN



GPS-12XL **Personal Navigator™ for the Extreme Outdoor Enthusiast** 12 channel receiver with external antenna for fast, accurate position fixes in tough conditions like tree canopy and urban obstructions. Rugged, compact case ideal for boaters, hunters or hikers. 500 user waypoints with alphanumeric name and user comments. 20 reversible routes of up to 30 waypoints each. TracBack™ navigation turns a track log into a route back home. Nine waypoint alarms. Over 1000 track log points, position averaging, emergency erase, and cloning features. Up to 12 hours operation on 4 "AA" batteries..... **$219.99**

GPS-12CX **Personal Navigator™ with Color Display for the Outdoor Enthusiast** Nine built-in languages including French, German, Spanish and Portuguese. 2,048 track log points. Selectable position formats including MGRS and user-definable grid. Provides heading, track, sunrise and sunset, ETE, ETA and other calculations. User selectable audible settings, TracBack™. Up to 36 hours of operation on battery life.... **$269.99**

NAVTALK™ **Personal Navigator™/Cellular Mobile** Combines GPS with cellular technology into one handheld unit. During travel, location is displayed in real time on a built-in map. Send your exact position and have it displayed on another NavTalk unit. **Cell phone:** Customized phone book • One-touch speed dial • Built-in pager; • One-touch emergency dial (subscription required) **GPS:** Shows interstates with exit info, cities, airports, etc. Plug into a PC and download from optional MapSource™ CDs [U.S. Roads and Recreation (010-10215-00) or World Map (010-10215-01 **Special Order**)]... **Closeout $349.99**

GPS-III PLUS **Personal Navigator™** Dash mount. Features road maps without plug-in cartridges. Selectable vertical or horizontal screen display. Dedicated keys for zooming from 0.2–360 miles, diagonal panning, auto start/stop timer, average/max. speed recordings. Rocker keypad, backlit LCD display, full featured moving map plotting, user selectable navigation screens for compass or graphic highway guidance. Download data from MapSource CDs..... **$299.99**

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STREET PILOT **Dashboard Mount** Built-in map of the Americas with state and country boundaries, lakes, rivers, cities, state and interstate highways and some local thoroughfares. Accepts GARMIN cartridges showing residential streets, addresses and points of interest. • Large high resolution 240 x 160 pixel display • 3-level, bright, amber, backlit screen and keypad • Auto turn-by-turn guidance with manual route selections • Auto waypoint and route naming • Storage for 100 waypoints • Trip planning and computer • Zoom key – 120'. to 800-mile range • Dashboard screen showing current trip segment, distance, direction • Clock and arrival alarms. Up to 16 hours on 6 AA batteries..... **$469.99**

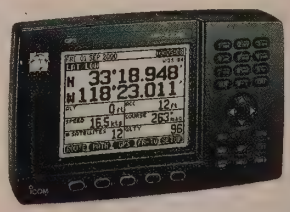
eMAP DELUXE **Electronic Map** Contains 12-parallel-channel GPS receiver and internal patch antenna in a compact design with built-in basemap showing cities, interstates, exit info and more. A large, high resolution, backlit screen provides a clear picture. Dedicated zoom keys with unique rockerpad design for easy one-hand operation. • Find cities, nearest exits and waypoints • Built-in trip computer provides odometer, stopped/moving/total time, moving/overall average and maximum speed • Map page displays direction pointer, speed, time, distance/time to go and trip distance • Save up to 500 sites • 2000 track log points • Up to 12 hours operation on 2 "AA" batteries. Includes interface cable, 8MB data card, wrist strap and guide • 2.4" x 5.5" x 0.8", 6.7 oz..... **$299.99**

eTREX *(yellow)* 12-parallel-channel GPS receiver and internal patch antenna packaged in a sleek, waterproof case. Operating buttons on both sides allow larger display. Simple menus and logical operations make it easy to mark your position. • Navigation using compass or maps • Dedicated zoom keys for map page • 500 user waypoints with name and graphic symbol • 1 route with 50 waypoints • Resettable trip computer • Auto track log, 10 saved tracks to retrace your path • Up to 22 hours of use with 2 "AA", alkalines • No memory battery required • 4.4"h x 2"w x 1.2"d, 5.3 oz..... **$119.99**

eTREX SUMMIT™ **Hiking Companion** *(grey)* Similar to the eTrex but includes a barometric altimeter and electronic compass for accurate elevation, direction and location reporting..... **$249.99**

ST PILOT COLOR **StreetPilot® Color Map** Portable GPS navigation. Ideal for business or vacation in busy metropolitan areas. View position in real time on a colorful electronic map. Look up cities, exits and more. Built-in electronic basemap shows interstates and motorways with exit information, most highways and thoroughfares, rivers, lakes, plus commonly used streets in metro areas. • Large, high resolution, 16-color display • Exit information reveals services available at interstate and motorway exits • Rugged construction and portable size • Powered by 12-volt adapter (included) or six "AA" alkaline batteries (not included) • Internal lithium battery backup..... **$599.99**

GPS-V Turn-by-turn navigation throughout North America, including major cities. Auto-routing shows the shortest and fastest routes. Display prompts with audible beeps alert to turns, distance to upcoming turns, course deviation, and distance to final destination. Built-in, routable basemap provides detail for interstates, interstate exits (USA only), highways, rivers and lakes in the U.S., Canada and Mexico, plus commonly used streets in metro areas. Downloaded maps from the MapSource MetroGuide (included), gives guidance down to residential street-level detail. Look up services and points of interest. View address, phone number and map location. • 500 user waypoints • 20 reversible routes • Trip computer provides odometer, stopped time, moving/overall average or total time, maximum speed • Automatic track log with 10 saved tracks • Up to 25-hour operation on 4 "AA"s • Permanent data storage, no memory battery • Water resistant • Includes auto mount, cigarette lighter adapter and PC interface cable • 2.32"h x 5.0"l x 1.62"w, 9 oz..... **$499.99**



ICOM

GP-270ML **Fixed Mount Marine GPS Receiver** Large LCD display • 12 channels • Full key pad • 500 user waypoints with 7-character names and 16-character descriptions • Marine database with 16,000 pre-programmed waypoints - all US buoys and lights • Built-in world map • 24-hour tide prediction for the entire world • Sun and moon phase prediction • Sun and moon rise and set times for any spot on Earth • Track plotter • 30 routes which are reversible • Includes 6 languages • DGPS ready • Operates with LORAN TDs • Free WAAS upgrade (June) • 3.1" x 9.9" x 5.8", 3.5 lbs..... **$399.99**

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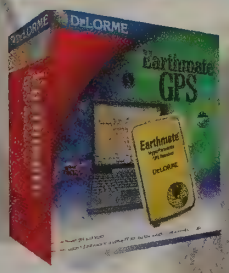
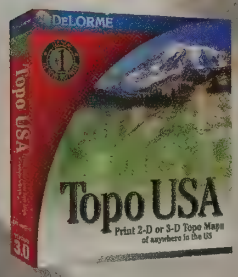


Earthmate® GPS Receiver - $139.99

Never Get Lost Again! The Earthmate GPS Receiver is a high-performance easy-to-use link to the Global Positioning System (GPS). Earthmate and your laptop PC work together to show your location in real time on detailed Street Atlas USA® Deluxe Maps.

Street Atlas USA® Deluxe is a street map of the entire U.S. that automatically calculates a route for you. You can search by specific address, placename, Zip Code, latitude/longitude, street intersection or area code and exchange. The Earthmate® Also works with Topo USA®, 3-D TopoQuads®, Eartha Global Explorer®, AAA Map'n'Go®, Topo USA: Fly-Fishing Edition or Golf Digest Places to Play Travel software. The pocket-sized Earthmate® can operate on four AAA batteries, and features a durable housing with a moisture resistant seal designed to withstand a wide variety of road conditions.



TOPO USA® 3.0 - $99.99

Plan the Perfect Outdoor Adventure! Use your PC and TOPO USA®, the most complete on-and off-road software. Contains information for the entire U.S. on over 300,000 trail miles and updated DeLorme national street data giving you the power and speed to quickly find and profile your trails, mark your route, look at trail elevations, print out detailed custom maps and more! Use with popular GPS receivers to upload and download GPS waypoints. Enjoy freehand drawing tools and right-click mouse options to trace trails, edit lines and measure line distance. Contains great topo views of anywhere in the US in 3-D and color.

laptop not included

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Navigation & Communications

The Meridian™ – Magellan's new premier line of rugged GPS handheld receivers, designed with serious navigators in mind.

MERIDIAN™ GPS *(left)* The most affordable of the Meridian GPS receiver line, but low price doesn't mean sacrificing features. This powerful GPS promises to be your most trusted tool in the field. • Expanded memory capacity for downloading maps with optional SD cards in 8, 16, 32 and 64MB • Large backlit display for easy map viewing • Rugged rubber armoring and high impact plastic for use in the harshest environments • Supports several languages including: English, French, German, Swedish, Finnish, Spanish, Italian, Portuguese, Dutch • Save Track-to-Route • Satellite status display • Built-in help • NorthFinder with sun/moon positions • Sunrise/set calculator • 2MB database of U.S. cities, interstate/state highways, political boundaries, major waterways and airports • Store 20 routes, 500 waypoints and 2,000 trackpoints • Vertical profile of track* • Horizontal profile* • Address Search ** **$219.99**

MERIDIAN™ GOLD *(middle)* All the features of the Meridian GPS, and includes a 16MB database of U.S. cities, interstate/state highways, political boundaries, major waterways and airports..... **$299.99**

MERIDIAN™ PLAT *(right)* Meridian™ Platinum Possesses all the features of the Meridian Gold and adds electronic compass and barometer that tracks barometric pressure like a weather station **$349.99**

** Requires MapSend™ Topo for United States*
*** Requires any version of MapSend Software*

Each Magellan GPS includes a powerful 12 parallel channel receiver, wraparound rubber armoring, "EZstart" operation, auto averaging and a waterproof design.

MAP 330 GPS The most memory in its class! Designed for the avid outdoorsman and mobile professional who demand supreme performance and functionality. The built-in 8-megabyte base map includes worldwide political boundaries and U.S. cities highways, major roads, national parks, waterways, and railways. And with 8 Megabytes of up-loadable memory, you can plan detailed, cross-country routes without having to visit your PC every other state. View your navigation information on any of the four graphic screens presented on a large, high-resolution display. With a powerful 12-parallel channel receiver and quadrifilar antenna, the MAP 330 provides outstanding lock-on tracking in a vehicle, boat, on foot, etc **$249.99**

GPS-315 Navigates to 20,000 major international cities or brings you back to 500 user-entered locations. Nine screens show bearing, heading, distance and speed. A 12 parallel-channel receiver offers performance under tough conditions. Auto-averaging gives your position while standing. Also: 1200-point Track, BackTrack, best fish/game time, 10-year back-up battery, PC up/download and simulator. The 6.4 oz. unit comes in a waterproof, shock-resistant case. It runs on 2 "AA" batteries for 15 hrs. Works with mapping software .. **$149.99**

GPS-320 GPS Navigator with Nautical Navaid Data Base and Worldwide Cities A fisherman's full-featured personal navigator with a large database of cities and regional marine aids and memory to store up to 500 waypoints and/or landmarks. Four navigation screens show direction, path traveled, and distance. Other features include: A 12 parallel-channel receiver, EZstart operation, 1200-point SmartTrack, BackTrack, best fish and game time, sunrise/set and mapping software compatibility. Uses 2 "AA" batteries, comes with 10-yr back-up battery..... **$169.99**

GPS ColorTRAK Satellite Navigator Featuring the world's first high resolution, color display in a portable GPS receiver. Outstanding lock-on tracking with eight graphic navigation screens including a real-time multiple route plotter with adjustable scale. Stores up to 500 user-entered locations & 20 reversible routes with 30 legs. The detachable super sensitive antenna provides superior tracking ability. Backlit display and keypad. Operates 30 hours on 4 "AA" batteries. 10-year memory back up battery. Includes case, wrist strap, battery and User/Quick reference guides..... Closeout **$239.99**

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HANDHELD SCANNERS

BC-60XLT-1 Handheld Scanner *(left)* 30 programmable channels, 10 bands – cover 29-512MHz • LCD channel display • Programmable chain search • One-touch weather • Lockout • Memory backup • Keypad lock • Scan delay • Manual channel access • Track tuning • Keypad lock • Uses four AA alkaline or nicad rechargable batteries, or operates on AC with included 110V AC adapter • 2.625"w x 6.75"h x 1.5"d, 10.5 oz..... **$99.99**

BC-80XLT Handheld Scanner Looks similar to 60XLT • 50 programmable channels, 11 bands, 5 banks - cover 29-956MHz (cell blocked) • 5 priority channels • On-touch weather • Manual channel access • Bands search • Full frequency LCD display • Uses four AA alkaline or nicad rechargeable batteries, or operates on AC with included AC adapter • 2.625"w x 6.75"h x 1.5"d, 10.5 oz **$149.99**

BC-245XLT TrunkTracker II Handheld Scanner *(right)* 300 programmable channels, 12 bands including Aircraft and 800MHz – covers: 29 to 956 MHz (cellular blocked) • Trunk tracking technology: trunk scan and search, truck lock out, trunk delay, and 10 trunk scan list • Programmable search • Memory backup • Manual channel access • Pre-programmed service search • Channel lockout • 10 priority channels • Rechargeable NiCad battery and wall charger • 2.5 "w x 6"h x 1.75"d, 12.5 oz..... **$229.99**

SC-180B Sportcat *(middle)* Hear car and pit crews at auto races, the cockpit at air shows, or use it as a traditional scanner to keep up with emergency personnel. 100 programmable channels, 12 bands/800 MHz (cell blocked)/Air, 10 banks • 10 priority channels • Twin TurboScan™ and search • Manual channel access • Instant weather • Full frequency, alphanumeric LCD • Rechargeable NiCad and wall charger • Includes sports frequency guide, AC adapter, rubber antenna, belt clip and earphone • 2.5"w x 1.625"d x 6"h, 11 oz. **$179.99**

SC-200 Sportcat Same as above with 200 program. channels, cloning capability and CTCSS .. **$219.99**

BEARCAT SCANNERS

CLT Scanners The first scanners with a built-in AM/FM radio and alarm clock.

BC-244CLT 30 programmable channels, 10 bands • Full frequency LCD • Channel lockout • Memory back-up • Manual channel access • One-touch weather • 8"w x 5.5"d x 3"h, 1 lb. 6 oz..... **$99.99**

BC-248CLT AM/FM Radio with 20 presets • 50 programmable channels, 10 bands, 5 banks of 10 channels each • One-touch weather • Full frequency display • Auto squelch • Lockout • Memory back-up • Manual access • Delay • 5 priority channels • 10"w x 5.5"d x 3"h, 1 lb. 6 oz..... **$109.99**

BC-278CLT AM/FM Radio with 20 presets • 100 channels, 12 bands, 5 banks of 20 channels each • 800MHz coverage (cellular blocked) • One-touch weather with S.A.M.E. weather alert • Full frequency display • Auto squelch • Lockout • Memory back-up • Manual channel access • Programmable delay • Data skip key • Pro-grammable search • Programmable service search • 5 priority channels • 10"w x 5.5"d x 3"h, 1 lb. 7 oz..... **$179.99**

BC-350A 50 channel, 11 band mobile/base scanner with Aircraft and instant weather • Super Turboscan™ @ 100 channels per second • Full frequency LCD display • Private channels, 20 programmable and scannable • Police channels • 10 programmable fire and emergency channels • Marine channels • Band search • Lockout channels • Mounting bracket, AC adapter, telescoping antenna cigarette and DC power cord • 5.25" x 6.8" x 1.625", 1.6 lb . **$119.99**

BC-780XLT Continuous Band Programmable Scanning Radio AM/FM/WFM • 500 channels, 10 banks, 10 priority channels • Covers 25MHz-1.3GHz (cell blocked) • Preprogrammed service searches • Full frequency, backlit, LCD display • TrunkTracker III • S.A.M.E. weather alert • SmartScanner™ • Clone feature • Alpha tagging • CTCSS/DCS • PC control • Base or mobile • Beep alert • Record every channel or every ID programmed (up to 1000 IDs) • 7"w x 6.56"d x 2.375"h, 41.96 oz **$369.99**

BC-895XLT "Trunk-Tracker" • 300 channels, 12 bands including Aircraft and 800 MHz, 10 banks • VFO control – covers 29-956MHz (cellular blocked) • 10 priority channels • TurboScan™ • One-touch weather with Weather Alert • Manual channel access • Built-in CTCSS • Trunk search • Scan lockout and delay • RS-232C port • Signal strength meter • Auxiliary tape output • Automatic store • 30 trunking channel indicator annunciators • 3-day memory backup • Programmable search • Lockout • 10.875"w x 3.625"h x 7.5"d, 3.5 lbs **$219.99**

BCT-7 Bear Tracker 800 Pre-programmed with frequencies for highway patrol, D.O.T, local and county police, news, fire, aircraft and CB services. Selectable by state (except HI) • 12 bands • 100 user programmable channels • Highway Patrol Priority Alert • Data Skip • Weather Scan • 13.8V DC or 110V AC operation • Mobile mount • 5"w x 7"d x 1.375"h, 1 lb, 11 oz **$179.99**

ICOM

R-10-05 General Coverage Pocket Scanning Receiver 500kHz-1300MHz (cell blocked). AM, SSB, FM wide or FM narrow modes. Programmable tuning steps. On-screen spectrum display, 1000 non-volatile memory channels in 18 banks of 50 channels. Scan by bank, mode, or program. Alphanumeric characters can be entered to identify channels and banks. Noise blanker and auto noise limiter. Auto frequency control (AFC) • Easy-to-read, edge-lit display • 24-hr clock with timer • PC programming capability • Adjustable LCD contrast • Signal indicator • Power-saver func. Uses NiCad, alkaline or other DC source. NiCads and wall charger. 2.3"w x 5.1"h x 1.2"d, 10.9 oz **$299.99**

R-2-06 Communications Receiver Wide frequency coverage from 0.495-1309.995MHz (cell blocked) in 9 frequency bands with 400 memory channels in 8 banks of 50 channels. FM, WFM and AM modes. **Features:** Quick, easy band switching • Tone squelch (CTCSS decode) • Offset monitor capability • Built-in attenuator • PC programming capability • Receiver-to-receiver data cloning • Multiple scan functions • Backlit LCD with timer • Priority watch function with beep alert • Channel indication • Automatic squelch • Up/ down keys for AF level control • Low-battery indicator • Auto-power-off • MIL-SPEC 810 C/D/E, weather resistant • Includes 2 NiCads and charger, antenna, handstrap and belt clip • 2.875"h x 3.375"w x 1.0625"d, 6 oz..... **$154.99**

R-3-26 Communications Receiver Provides wide-band receive capability from 0.5–2450 MHz (cell blocked). Includes 2" TFT color display which may be changed to mono to conserve battery power. Receive favorite TV shows, scan for wireless cameras like those in race cars. Use with a wireless camera to monitor babies, traffic, etc. Video /audio output terminal allows displaying to a large monitor or recording device. Signal strength and band scope functions assist in finding the action you want to hear. Includes 450 memory channels with alphanumeric names, CTCSS, attenuator, and more. A long lasting Li-ion battery offers easy charging, lightweight performance, and up to 27 hours of continual use on the mono LCD • PC programming capability • 2.4"w x 4.72"h x 1.28"d, 10.6 oz **$349.99**

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GENERAL MOBILE RADIO SERVICE (GMRS)

A personal radio service available to an individual with the proper FCC license. A two-way voice communication service to facilitate the activities of the individual's immediate family members. You can discuss your own commercial and/or family business activity. Higher powered 2 to 5W handheld portables allow communications over 1 to 5 miles. **Interstitial Frequencies:** 462.5625, 462.5875, 462.6125 462.6375, 462.6625, 462.6875 462.7125 MHz **Primary Frequencies:** 462.5750, 462.6250 MHz **"Emergency" Frequency:** 462.6750MHz

FAMILY RADIO SERVICE (FRS)

For non-commercial use, FRS shares GMRS frequencies but doesn't need a license to operate. Uses include: camping, hiking, amusement parks, skiing, mobile caravans, any place where multiple people need to stay in touch. 100mw to 0.5W ratings of handhelds allow range of up to 2 miles.

KENWOOD

FRS RADIOS

UBZ-AL14BK *(left)* 500mW output • 14 FRS channels • Battery saver function • Lamp function • Call tone transmit function • Audible low battery warning beep/ blinking • Up to 30 hrs with 4 "AAA" alkaline cells • Black • 3.75"h x 2.31"w x 1.19"d C/O **$29.99**

UBZ-AM14BK FreeTalk EL *(mid-left)* Easy to use FRS radio that's perfect for families. A compact design makes it easy to hold with lit display for easy viewing. 14 channels, 38 talk groups • Removable belt clip • 32-Step variable volume control • Call ring tone • Battery save mode • Low battery alert • Fixed low profile antenna • Transmit/busy icon • Works up to 30 hours with 4 "AAA" batteries • Black • 3.73" x 2.2" x 1.19" ..... Sold In Pairs Only/Closeout **$59.99**

UBZ-GM14 FreeTalk WX FRS Radio *(mid-right)* With built-in NOAA weather radio. Under noisy conditions, activate vibration call alert feature. 14 channels, 38 talk groups • Large lit LCD with status icons • 32-Step variable volume • Call ring tone • Battery save mode • Low battery alert • Audio accessory jack • Removable belt clip • Operates on 3 "AA" batteries • Black • 4.71" x 2.2" x 1.2" ..... Closeout **$39.99**

UBZ-LH14BK FreeTalk™ *(right)* 500mW • 14 FRS channels • 38 talk groups (CTCSS) • Privacy talk voice • 4 call ring tones CORDS (In-Range Detect System) • Battery saver and auto power off • Low battery alert indicator/beep • Works up to 40 hrs operation with 3 "AA" alkaline cells • Only available in black • 3.5"h x 2.25"w x 1"d **$79.99**

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MOTOROLA

FRS RADIOS

TalkAbout 250 • 38 interference eliminator codes • Built-in hands free operation (VOX) – when used with optional audio accessory • Time-out timer • Transmit light • Audible low battery alert • Scan • "Talking" channel confirmation • Battery meter • LCD display • Audio accessory connector • Removeable belt clip • Operators manual • 3.75"h x 2.25"w x 1.375"d x 6.5"h with antenna • 1 year warranty

53543 (Camo)..... Closeout **$59.99**
53590 (Blue) ..... Closeout **$59.99**
53592 (Black)..... Closeout **$59.99**

53770 FR50 Operates on three AA batteries •14 channels • Carrier squelch • Audible call alert • Side push-to talk (PTT) • Backlit LCD display • Audible low battery alert • Removable belt clip • Single pin audio accessory connector • Time-out timer • Manual • One year warranty • Dark slate • 4.33"h x 2.36"w x 1.30"d, 6.6 oz... Closeout **$34.99**

56360 T6220 Talkabout® FRS 14 FRS UHF frequencies, 38 privacy codes • Simple menu • Backlit LCD display screen • Button beeps • Power-save mode • Time-out timer • Transmit LED • Talk group filter • 5 audible call alerts • Audio accessory connector • Lock button • Ring alert • Signal strength indicator • Scan • Uses "AA" alkaline batteries • Rechargeable ready with charging dock • Belt clip..... **$59.99**

53834 T5200 Talkabout® FRS Radio • 14 FRS UHF frequencies, 38 privacy codes • Backlit LCD display screen • Power-save mode • Time-out timer • Transmit LED • 5 audible call alerts • Audio accessory connector • Lock button • Uses "AA" alkaline batteries • Belt clip **$39.99**

GMRS RADIOS

Common Features: 38 Interference eliminator codes • Built-in VOX operation (when used with optional audio accessory) • Scan capability • Voice-assisted programming • Low battery alert • Transmit light • Audio accessory connector • Removeable spring action 2.5" belt clip • Rechargeable battery • 10 hour charging adapter

53544 TalkAbout DX • 2W • 5.25"h x 2.5"w x 1.25"d, 11.1 oz..... **$189.99**

53547 TalkAbout DXDPS Additional Features: • Alkaline battery tray (6 AA batts. not included) • 2W • 6.25"h x 2.5"w x 1.25"d, 11.7 oz... **$199.99**

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ICOM

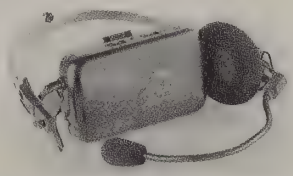
FRS RADIOS

IC-4008A 500mW • 14 channels; 38 Group channels • "Call-Ring" and "Smart Ring" functions provide telephone-style ring with 10 different tones • Auto transponder function automatically checks station availability and alerts via function display indication • Fold-down antenna • Water resistant • Requires 3 "AA" alkalines • Black • 4.5"h x 2.25"w x 1"d **$79.99**

maxon

49MHz FM PERSONAL COMMUNICATORS

Low power, 1/4 mile average range • Dual conversion super-heterodyne receiver provides crisp, clear transmission • Use for group communications • Push-to-talk or voice activated - talk-to-transmit • No license required • Channels: 49.830MHz, 49.845MHz, 49.890MHz, 49.860MHz, 49.875 MHz



MX-49SX A single channel unit including a lightweight adjustable headset with retractable whip antenna and boom microphone with windscreen. Uses only one of first 3 channels (see above) • LED power indicator • battery charger jack • Range up to 1/4-mile • Uses two "AA" alkalines or rechargeable nicads • 5"w x 2.5 "h x 1"d, 9 oz..... **$29.99**

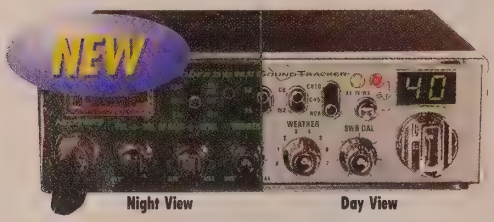
MX-49FX The unique earphone and microphone pick up voice vibrations from the ear canal for transmit audio and also provide received audio • Will not interfere with helmets • 5 selectable channels • Built-in antenna gives up to 1/8-mile range • Remote PTT button & channel selector. Uses three "AA" batteries. 5.5"w x 3"h x 1"d 6 oz **$49.99**

MX-49HX Great for motorcycling, snow mobiling, etc. The helmet adaptable headset has a whip antenna and boom microphone with windscreen • 5 selectable channels • VOX or PTT with on-unit or remote switch • Front mounted off/on, volume, VOX sensitivity and channel selector • Jacks for optional passenger intercom headset • Uses three "AA" batteries • 5.5 "w x 3"h x 1"d, 6.5 oz.. **$49.99**

CB RADIOS

148NW ST **Full Featured AM/SSB Mobile CB Radio** 12W PEP SSB RF output • 4W AM RF power (FCC max. allowed) • 120 channels • Dual conversion AM receiver • SoundTracker™ system • NightWatch™ dimmer control • USB/LSB/AM • Digital channel indicator • RX/TX indicators • Switchable noise limiter & blanker • RF-gain control • Hi/Low tone switch • PA capability • SWR indicator • Instant channel 9 • 7.25" x 2.25" x 8.625", 6 lbs .. **$179.99**

19DX III **AM Mobile CB Radio** New Compact design • 40 channels • Combination S/RF meter • 4W RF output – (max. FCC allowed) • Instant channel 9 switch instantly switches from any channel to Emergency Channel 9 • TX indicator • CB/PA switch selects CB operation or PA operation • Mobile bracket • 4.563"w x 1.75"h x 7.25"d, 21 lbs..... **$49.99**



29 WX NW ST **Full-featured Weather Band CB Radio with Illuminated Front Panel** 40 channels, AM • Instant channels 9 & 19 • 7 NOAA weather channels with weather alert tone • 4W RF power output • SoundTracker™ system • Tactile controls • Dimmer control • Switchable automatic noise limiter & noise blanker • SWR calibration • PA capability • NightWatch™ illuminated front panel • 7.2w" x 2.2h" x 8.6d", 6 lbs **$129.99**

CB RADIOS

GRANT-LT **AM/SSB Mobile CB Radio** Dynamic Squelch Control (DSC) for improved clarity • Full PLL synthesized 40 channel operation • **Single sideband**, 12W PEP (AM, 4W) • LED Channel indicator • Backlit control knobs • Mic gain, RF gain and clarifier controls • NB/ANL switch • PA/CB switch, dimmer control • Multifunction meter (relative RF output, modulation, SWR and receive signal strength) • TX/RX indicator, tone HI/LO switch • 7.875"w x 9.5"d x 2.375"h, 5 lbs ..... Closeout **$169.99**

PC-78XL **AM Mobile CB Radio** Full PLL synthesized 40 channels • DSC - Dynamic Squelch Control • Instant channel 9 • Microphone and RF gain controls • Delta tune control - Fine tunes received signal and reduces interference • Noise blanker and automatic noise limiter • PA/CB switch • Dimmer control • TX/TX LED indicators • Antenna warning LED - lights when high SWR condition is present • 7 7/32"w x 8⅝"d x 2⅜"h, 4 lbs. 3 oz..... **$109.99**

PC-78LTW Same basic features as the PC78XL with the addition of NOAA Weather Channel reception with Weather Alert..... **$129.99**

PRO-520XL **Compact 40 Channel AM Mobile CB Radio** 4W • Instant channel 9 access • 4-segment S/RF meter • TX LED • LED channel indicator • RF gain • PA switch • Automatic noise limiter • Only 4½"w x 6¾ "d x 1⅜" d, 1 lbs. 10 oz..... **$59.99**

900MHz CORDLESS PHONES

EXP-7902 **Cordless Phone with Voice Scramble** 40 channel auto-scan • Voice scramble security • Ultra-Clear noise reduction • 10 mem. • 3 one-touch keys • 7 hrs talk time • Long-life battery • 32 digital re-dial • Page/fine feature • Desk/wall mount ..... Closeout **$29.99**

EXA-7950 **Cordless Telephone w/Digital Answering System** Integrated digital answerer • 40 channel autoscan • Time and day stamp • Remote message retrieval • 15 minute record time • Base speakerphone • 10 number memory dialing • 3 one-touch priority keys • 14-day stand-by • Desk or wall mount.... Closeout **$49.99**

EHD-1200GB **Harley Davidson® 900 MHz Cordless** Exclusive telephone crafted by Uniden to replicate the Harley gas tank. 900MHz extended range • 40 channel autoscan • 10 number memory dialing • Three one-touch speed dial keys ..... Closeout **$39.99**

RECOMMENDED ANTENNAS FOR CB

COBRA

HGA-1000 Magnet mount base loaded mobile antenna with coax and connector..... **$24.99**

HUSTLER

HQT A 55 inch top loaded whip with Mirror Mount bracket. Comes with 12 ft. cable with PL-259 connector. Chrome with a white coil **$27.99**

HQ-27M A 55 inch top loaded whip with Trunk-lip Mount. Comes with 15 ft. cable and PL-259 connector. Chrome with a white coil..... **$36.99**

See Price Guide under Hustler

LARSEN

NMO-27C Base loaded mobile, less mt .. **$33.99**

NMO-TLP Low profile trunk mount for NMO-27C. Comes with 17' coax and PL-259 **$29.99**

NMO-MM NMO-27C magnet mount. Comes with 12' coax and PL-259 connector ... **$31.99**

SOLARCON

A-99 Base Station Antenna. Three-piece fiberglass design uses a half wave over a quarter wave section, and is tunable. Entire 17 ft. 8 in. length radiates producing about 3 dB gain **$64.99**

GPK-1 A-99 ground plane kit. Adds 30% more power gain and lower angle of radiation . **$39.99**

WILSON

W-1000 5 ft. base loaded mobile antenna. Available in three mount configurations. All come with 18 ft. cable and PL-259 connector.

ROOF thru-hole mount..... **$57.99**

TRUNK mount **$65.99**

MAGNET mount..... **$76.99**

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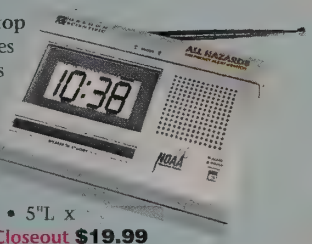
Monitors 24-hour weather forecasts and alerts • Scans all NOAA channels • Monitors U.S. emergency alert system with auto activation • Dual LED power/alert indicator • Digital clock land alarm with snooze

WR-8000 Pocket-sized Ambient temperature display • audio/visual freeze alert • LCD screen with backlighting • Water resistant case with compass • Belt clip • Uses 3 "AA" batteries, not included • 2.5"w x 1"d x 6.5"h, 8 oz Closeout **$29.99**

WR-102 Portable S.A.M.E. Weather Radio A handheld all-hazards weather radio that receives and displays alerts, watches and warnings that apply only to a local area using S.A.M.E. technology **$49.99**

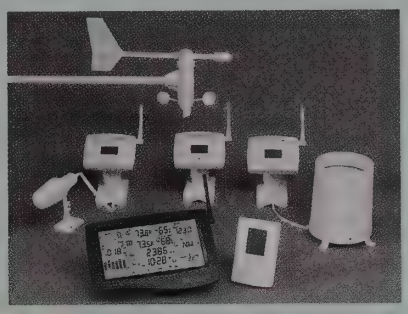
WR-196T Desktop AM/FM/S.A.M.E. Weather Radio AM/FM radio with ten memory presets • Digital tuning, including seven NOAA weather channels • Dual LCD display for clock and dot-matrix text message • Automatic audible and visual alert activation plus blinking LED warning • Standby mode to mute speaker • Digital clock with calender, alarm, and 5–120 min. sleep timer • Operates from (3)"AA" batteries or AC adapter • 6.75"h x 5.25"w x 0.875"d, 0.75 lb..... **$59.99**



WR-3300 Desk-top or Bedside Operates on 3 "C" batteries (not included) or included AC power adapter • Large digital clock LCD • Wall mount or desktop • 5"L x 4"w x 2"h, 6 oz ... Closeout **$19.99**

WEATHER STATIONS

RGR-122 Long Range Rain Gauge Self-emptying and provides cumulative and daily precipitation totals for up to nine days. Its wireless, long range capability allows the collector to be placed up to 300 ft. from the main unit. The collection data is broadcast at 433MHz to the indoor base unit and displayed on an attractive easy-view 3.5"h x 1.5"d x 2.5"w LCD console. Includes indoor temp. gauge. Requires 2 "AA" batteries in both collector and main units .. **$69.99**



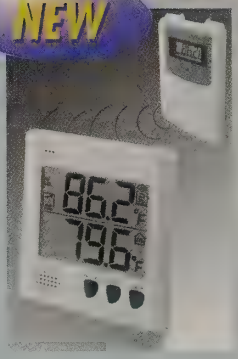
WMR-968 Cable Free™ Weather Station Innovative wireless outdoor sensors with 300 ft. range operates on solar power for simple installation and sophisticated ease. Track and record over 20 separate weather conditions by a press of the touch-sensitive jumbo LCD display screen..... **$329.99**

WM-918 Complete Weather Monitoring Station Monitors over 20 weather and environmental conditions. Sensor range up to 300'. Self-dumping electronic rain gauge, outdoor temp. and humidity sensor, anemometer (wind speed/direction), and all wiring. Desktop control panel displays clock, calendar, alarm, and weather. Also features weather forecasting displaying local 12/24-hour forecasts. Uses 8 AAA batteries, AC adapter included. 7"l x 4.25"w x 1.5"h, 14.8 oz..... **$199.99**

SW-918 Software/cable; WM-918..... C/O **$29.99**

OTHER WEATHER PRODUCTS

NEW



EMR-812A Cable Free™ Thermometer The latest in radio frequency technology! This Cable Free™ thermometer with jumbo display shows you the indoor temperature and the temperature from up to three remote locations. Includes one easy-to-install remote temperature sensor that can be placed up to 90 feet from the main unit – with no wires to install anywhere! • 433MHz operation • High/low memory and temperature alarms • Choose and change between degrees C and F • Includes one wireless sensor **$39.99**

RM-116E Exactset™ Radio Controlled Clock *(left)* The most accurate of alarm clocks. Sets itself automatically by receiving time signals from the U.S. Atomic Clock. Features blue HiGlo™ backlight LCD, snooze, day/month/seconds and automatic adjustment for Daylight Savings Time **$39.99**

BA-812E Weather Clock *(right)* Unique bedside or desktop alarm clock features automatic weather forecasting technology with easy-to-understand graphical weather icons. Displays indoor room temperature & features a HiGlo™ backlit LCD .. Closeout **$24.99**

SECURITY ITEMS

PE-319 Pedometer with Personal Security Stay at ease while exercising away at home. This pedometer features a 120dB panic alarm for personal security and emergency. Displays elapsed workout time, distance walked and a 12/24 hour clock on its backlit 2-line LCD display.. **$29.99**

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SONY

ICF-B200 Emergency AM/FM Radio Turning generator handle for one minute provides 30 minutes listening time. Also operates with 2 "AA" batteries. Includes emergency light and audio beacon. Orange color stands out in foliage. Water-resistant. Head-phone jack. 3.125" x 6.375" x 2.5", 11.5 oz..... Closeout **$49.99**

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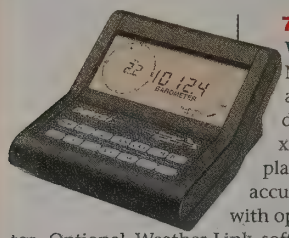
7440 Weather Monitor II® This weather station combines all weather monitoring function and 12 or 24 hour clock with date into one package. Shows them on an back lit, 1⅞" x 4⅜" LCD display. **Temperature:** Outside, –50 to 140°F; Indoor, 32° to 140°F **Wind:** Direction in 1° or 10° increments • Speed to 175mph • High wind speed & wind chill to –134°F **Barometer:** Barometric pressure with memory recall and trend arrow **Humidity:** Inside 10%-90% (outside optional) • High and low **Alarms:** Temp., wind speed, wind chill, humidity, time and barometric trend **Features:** Scans selected functions • 115VAC • Battery back-up • Desk, shelf or wall • 5.25" x 5.875" x 3" **$269.99**

7859 External Temperature & Humidity Sensor For 7440; measure outside humidity, dew point and temperature. Includes 40' cable **$109.99**



7425 Weather Wizard III® Monitor indoor and outdoor conditions on a 1.875" x 4.375" LCD display. Measure daily & accumulated rainfall with optional rain collector. Optional Weather-Link software will process and store data through an IBM® compatible or Mac®. Includes anemometer, external temp. sensor, junction box, cables and AC adapter. **Temp:** Indoor, 32°F to 140°F, outdoor, -50° to 140°F • Low or High **Wind:** Direction in 1 or 10° increments, speeds to 175mph, chill to -134°F • **Alarms:** Temp., wind speed/chill, time • Scans selected functions • Metric or U.S • 115V AC • Desk, shelf or wall • 5.25" x 5.875" x 3"..... **$169.99**

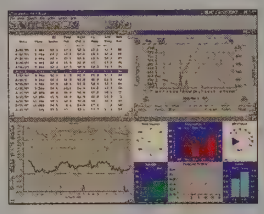
7852 Rain Collector II For 7440, 7425 & 7415; read both daily and accumulated rainfall in 0.01" increments. Comes with 40 ft. cable..... **$69.99**

7400 Perception II® Monitors indoor climate, looks similar to 7425. **Functions:** Temp. 32°F–140°F • Barometric pressure w/memory recall • Humidity • Highs/lows recorded with time & date • **Alarms:** Temp., humidity, time, barometric change • 12/24 hour clock with date **$129.99**

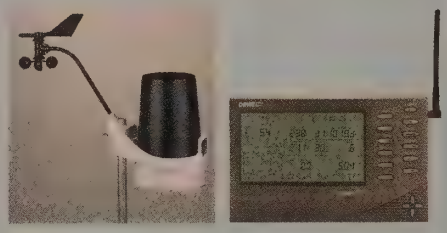
0281 Wind Wizard™ Wind Speed Indicator Handheld unit accurately measures wind speed from 0-60MPH in miles/hr, meters/sec, Beaufort. No batteries required **$46.99**

0271 TurboMeter™ Wind Speed Indicator Turbine suspended on sapphire jewel bearings responds to lightest winds • 3-digit display • Reads speed in miles/hr, knots, feet/min, meters/sec • Requires 3 "AAA" batteries **$99.99**

SOFTWARE



7862/7866 WEATHERLINK® Windows® or Mac platform. Links Perception, Weather Wizard, or Weather Monitor to a PC. Create graphs, calculate average conditions, generate summaries, analyze trends, etc....ea. **$139.99**



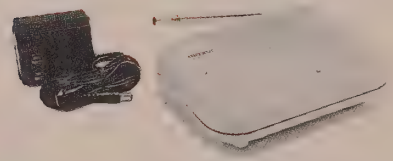
6150 Wireless Vantage Pro The latest in weather technology! Offers forecasting, on-screen graphing, and more. Quick view icons show the forecast at a glance – sunny, partly sunny, cloudy, rain or snow, while a moving ticker-tape displays. An innovative integrated and solar powered sensor suite combines rain collector, temperature and humidity sensors, and anemometer into one package. Typical wireless range is up to 150-200ft. For improved accuracy, the temperature and humidity sensors are housed inside a radiation shield which protects solar radiation and other sources of radiated and reflected heat..... **$499.99**

74-109 WEATHER MAX PLUS Weather/All Hazard VHF Radio Up-to-the-minute weather and "hazardous conditions" information. Equipped with all N.O.A.A. channels in the 162MHz range for maximum reception of local weather and hazardous conditions reports (fire, earthquakes, radiation, etc.). In the event of severe weather or hazardous situation, a warning signal is broadcast and the radio's "alert" is automatically activated, sounding a 90-decibel siren, voice warning or flashing an LED alert. There is also an accessory jack for keying add-on alert devices such as strobe lights, buzzers, etc. Plugs into a standard 120 VAC outlet. Built-in jack permits powering from any 12 VDC vehicle. With a 9V battery backup system, it operates during power outages or outdoors. 1.375"h x 6.25"w x 4.75"d . Closeout **$19.99**

74-200 Digital Weather/Hazard Alert Monitor Provides 24-hour National Weather Service information from 7 different NOAA channels for maximum capability up to 50 miles. Eight-character LCD displays up to 56 types of S.A.M.E. watches or warnings and monitors status of user selectable warning system. Weather Command button switches from alert mode to full monitoring. Clock displays time and date and has alarm functions. Telescoping antenna, external antenna input and alert device output jacks. Operates from 9-14VDC and 117VAC with supplied adapter. Accepts 9V battery for backup during outages. 7.75"w x 2"h x 5"d, 18 oz..... **$59.99**

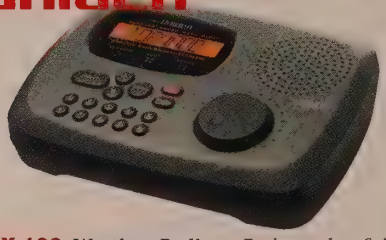
74-210 Digital Weather/Hazard Alert Monitor with S.A.M.E. Provides the latest storm or hazard safety information only in areas you specify, county-by-county. Digital tuning provides pin-point accuracy for 7 NOAA frequencies, covering all US/Canada weather channels up to 50 miles. The digital FM radio with five memory channels automatically switches to alerts when they occur. Digital readout also displays up to 56 types of watches and warnings as well as the radio frequency and time of day. Operates from 117VAC and 9-14V DC with 4 "AA" batteries for back-up. Accessory jack makes it easy to add an antenna, strobe light, pillow vibrator or any X-10 accessories. 7"w X 5"d x 2"d... **$79.99**

maxon SYSTEMS



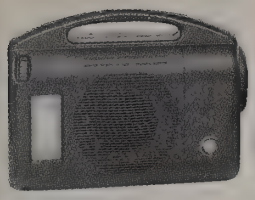
WX-70 Weather Monitor Receive up-to-the-minute National Weather Service (N.O.A.A) broadcasts of local weather conditions for the U.S., Puerto Rico and the U.S. Virgin Islands. Tunes all 7 N.O.A.A frequencies. Three severe weather "Alert" warning modes: "VOICE", 10 Second SIREN, or Flashing LED. Operates from supplied 110V AC adapter; uses a 9V battery for back-up power in the event of an outage. 5.75"w x 4.75"d x 1.5"h..... Closeout **$29.99**

uniden



WX-100 Weather Radio • 7 channel • S.A.M.E. alert • Backlit LCD display • Weather key • Warning and watch indicators • Alarm clock • 9V battery backup ..... Closeout **$49.99**

We accept I.M.P.A.C.® Government Credit Cards



Freeplay

SELF-POWERED PRODUCTS

No batteries or external power needed. Perfect for activities, emergencies, power outages. Inside, the *Freeplay Generator,* a wind-up B-motor carbon steel spring, drives a generator thru a transmission to produce operating voltage. A short wind-up yields up to an hour of listening, depending on model & volume. Built-in antenna, external power & headphone jacks.

FPR-2 (right) AM & FM broadcast band coverage. Each wind-up provides 60 minutes of operation. 8"h x 11.5"w x 8"d, 5 lbs, 5 oz..... Closeout **$39.99**

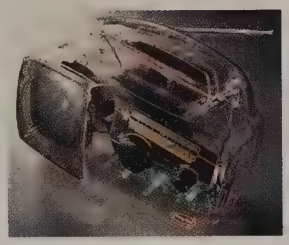
FPR-1B (left) AM & FM broadcast plus 5.8 –18MHz SW. Each wind-up gives 30 minutes of operation. 10"h x 13.5"w x 5.5"d, 6 lbs, 3 oz Closeout **$49.99**

AC APAPTER for BayGen FPR-2 only C/O **$6.99**

HEADPHONES for FPR-2 only..... C/O **$7.99**

SWL ANTENNA Indoor SW ant..... C/O **$14.99**

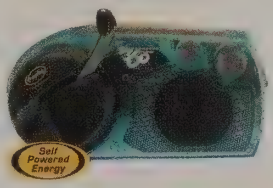
FPR-2SGSW Global Shortwave Covers AM/FM broadcast and 5-18 MHz. Plays up to an hr. under spring power. It auto switches to solar panel to use available light. Plays all day in direct sunlight and can also be powered by an optional AC/DC adapter..... Closeout **$69.99**



Same as FPR-2, with a solar panel that provides powers when exposed to sunlight. It powers off of a solar panel alone in direct sunlight, but as light decreases, the radio automatically draws from the spring generating mechanism.

FPR-2SC Clear case..... Closeout **$49.99**

FPR-2SM Grey case..... Closeout **$39.99**



S360-BL (clear blue), **S360-C** (clear) **Freeplay® 360** Covers AM and FM broadcast. 60 turns provide full energy storage. Wind without interrupting reception. Solar panel powers it all day in direct sunlight. It auto saves all available spring and solar energy, giving 15 hrs of play when fully charged. Also charges with wall adapter Closeout ea. **$39.99**

FP-SL (yellow), **FP-SL-CBL** (clear blue) **Freeplay® Lantern** Works off internal generator or rechargeable battery. 30 sec. wind provides 3 min. light. Includes 1Hz flasher. Battery mode gives 2 hours of light. Auxiliary power socket provides 3V DC @ 350mA. Weather resistant. 7" x 10" x 5.5", 4 lb. 7 oz C/O ea. **$39.99**

BLUB Extra xenon bulbs (2-pack)..... C/O **$4.99**

FPS-10 Patch cord for 3V aux. output C/O **$2.99**

Emerson

ESR-220 Solar and Dynamo Powered Radio and Flashlight Built-in NiCad battery recharges using the solar panel or dynamo generator. Install three "AA" batteries for back-up only. Can also be powered and recharged using optional AC adapter • Bright beam flashlight with two modes: steady ON or flashing ON and OFF • Warning siren feature can be used alone or with flashing light • AM/FM radio has built-in antenna • 8.5" x 3.5"..... **$29.99**

PDC-803 Electronic LCD Digital Compass Easy-to read LCD screen displays heading as a cardinal point (e.g. N, NW, SE) with numeric digits in degrees (e.g. 17°) plus a directional compass arrow • Backlight for night use • One touch calibration corrects for local magnetic interference • Mounts on dashboard with velcro • 3 "AAA" batteries included • 1.875"w x 3.625"h x 2.75"d, 4 oz..... **$29.99**

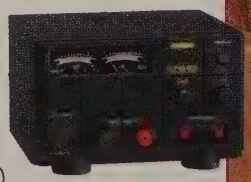
We accept I.M.P.A.C.® Government Credit Cards

Alinco – The Name You Trust for Value!

DM-330MVT Communications Grade Switching Power Supply

Tiny, powerful, 30A continuous, 32A peak output, weighs less than 5 lbs! Variable output 5 ~ 15 VDC, memory output, rear panel high-current (30A) terminals, triple circuit protection, illuminated V/A meter, ultra-quiet with patent-pending noise-shift circuit. Front panel cigar (10A) and quick-connect (5A) terminals, ripple less than 15mV p-p. Perfect for travel, station or test bench use. There's no switching supply like it!

DM-340MVT IC Regulated Power Supply



30A nominal, 35A peak output. Variable output 0 ~ 15 VDC, convenient front-panel connections includes high-current terminals, cigar lighter (10A) and quick-connect (5A). Built-in circuit protection, convenient front-panel fuse. (220VAC version available.)

DJ-X2000T Multimode Wide Range Communications Receiver

NEW!

New! It's the "Intelligent Receiver" covering from 100 KHz ~ 2150 MHz with 2000 memory channels, alphanumeric labeling, receives AM, WFM, NFM, LSB, USB, CW and FM stereo. On-line "help" feature, 20 scan programs, computer programmable (download free software from Alinco website), Channel Scope™ display, Transweeper™, RF frequency counter, digital sound recorder, CTCSS decode, 2 level attenuator, field strength meter, instant "flash tune" and much, much more!

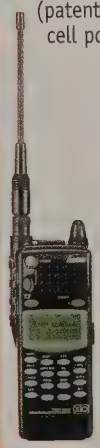
DJ-X2T Scanning Receiver

"Credit Card" size, 0.5 MHz ~ 1 GHz tuning range*, 700 memory channels (70 channels X 10 banks), AM, FM, WFM modes, SMA antenna connector, 3 different antenna modes including internal AM ferrite bar, illuminated display, effective RF "sniffer" feature detects hidden transmitters (patent pending), internal Lithium-ion battery PLUS snap-on dry-cell power pack and more! (DJ-X2TC export version available.**)

DJ-X3T Multimode Wide Range Communications Receiver

NEW!

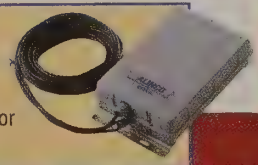
Revolutionary design! 100 KHz ~ 1.3 GHz, AM, NFM, WFM, NiMH battery, 700 memory channels, four scan modes, bug detector, four antenna modes, SMA antenna, stereo FM reception with optional stereo headphones.



DJ-X10T Multimode Wide Range Receiver

100 KHz ~ 2 GHz*, 1200 memories, alphanumeric display, Channel Scope™ receives WFM, NFM, USB, LSB, AM and CW. Internal HELP function, seven scan modes, clock with on/off function, "new user" and "expert" modes, BNC antenna connector, cloning function, affordable Alinco price and much more! (DJ-X10K export version available.**)

EDX-2 Automatic Wire Antenna Tuner



Tunes random length wires or grounded mobile whip from 9 to 80 feet. Compatible with DX-70 and DX-77 HF radios. Made for outdoor mounting, use at home, mobile or marine. Outputs to antenna wire only (no coax output).

Distributed in North America by ATOC Amateur Distributing LLC
23 S. High St., Covington, OH 45318 • (937) 473-2840

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Simple ■ Clean ■ Dependable
ALINCO
AMATEUR RADIO'S VALUE LEADER™

Cellular excluded. **Unblocked export version available to qualified buyers. Product intended for properly licensed operators. Permits required for MARS/CAP use. Specifications subject to change without notice or obligation. Performance specifications only apply to amateur bands. APRS is a registered trademark of Bob Bruninga, WB4APR. The FCC has not yet

ADI

SINGLE BAND HANDHELDS

The AT-201HP and AT-401HP are ADI's advanced single band handhelds. They have 40 memory channels, programmable band scan, automatic repeater offset, frequency or channel display and more. The units have a rugged metal chassis and nicely backlit keypad and display. They come standard with a 12 volt battery, which provides 5 watts of RF power, perfect for accessing those distant repeaters. Other common features include • MARS and CAP capable (permits required) • 5W output (with 12 VDC) • 40 memory channels to store any offset or tone • CTCSS encode/decode • Programmable band and memory scan modes • DTMF paging • Dual frequency watch • Auto-repeater offset • User selectable frequency or channel display modes.

AT-201HP **Two Meter Handheld** Transmit range: 144–148MHz • Receive range: 130–179MHz • 4.25"h x 2"w x 1.3"d excluding battery pack..... **$119.99**

AT-401HP **70 Centimeter Handheld** Transmit: 430–450MHz • Receive: 420–470MHz • 4.25"h x 2"w x 1.3"d excluding battery pack..... **$159.99**

Available Accessories

ARC12 Smart charger, **CBP262** 6 AA NiCad battery holder, **CHA072** Wall charger for RBP072, **CHA120** Wall charger for RBP120/RBP22, **MQA999** Rapid charger, **PCA145** Cigarette lighter cable, **RBP072** 7.2V 700mA NiCad, **RBP120NMH** 13.2V 1kHz NiMH, **SLC200** 2.5W carrying case, **SLC200L** 5W carrying case, **PRESPM200** Lapel mic/earphone, **PRESPM400** Boom mic, **PRESPM700** Palm mic/earphone

The PR-52 and PR-222 handhelds expand your horizons beyond "average" VHF operation, and onto the enjoyable 222MHz amateur band or the 6m "DX" band. These 5-watt, palm-sized units bring you the portability and power you need to fully explore two great VHF bands. Other common features include 5W output with included NiCad battery pack • MARS and CAP capable • Built-in CTCSS encode and decode • 40 memory channels store any tone or offset • Direct frequency entry using 16 button keypad • Frequency or channel display modes • PC programming capability or cable cloneable.

PR-52 **6 Meter Handheld Transceiver** Transmit: 50–54 MHz • Receive: 40–54MHz • 4.25"h x 2"w x 0.25"d excluding battery pack..... **$159.99**

PR-222 **220MHz FM Handheld Transceiver** TX: 222–225MHz • RX: 216–228MHz • 4.25"h x 2"w x 0.25"d excluding battery pack..... **$169.99**

Available Accessories

CBP263 AA battery case, **MQA999** Rapid charger, **PTC001** Mobile power pack, **RBP22** 12V 600mA NiCad, **RBP22H** 12V 1000mA NiMH, **SLC22L** Leather case, **PRESPM200** Lapel mic/earphone, **PRESPM400** Boom mic, **PRESPM400LPT** Boom/lapel mic with PTT, **PRESPM700** Palm mic with earphone

DJ-280TH **220MHz FM HT** Simple operation with advanced technology. 5W output with supplied 12V NiCad battery pack • Transmit: 222–225MHz; Receive range: 220–224.995MHz • 10 multi-function memory channels (expandable to 50 or 200 channels) • Encoder/decoder installed • 1750Hz tone burst • Auto power off • Low battery indicator • Highly visable illuminated LCD display • 16 digit DTMF pad • Non-standard repeater offset capable • 5.2"h x 2.3"w x 1.3"d, 11.3oz **$189.99**

Available Accessories

EBC3 Belt clip, **EBP24N** 7.2V 1200mA battery, **EBP28N** 12V 700mA NiCad battery, **EDC16B** Cigarette light cable with filter, **EDC36** Angle plug power cable with filter, **EDC37** 13.8V power cable, **EDC43** Cigarette lighter cable, **EDC45** Desk quick charger, **EDC49** Battery charger for EBP24/26/28N, **EDH11** Battery holder **EDH12** DC jack adapter **EJ14U** 50 channel memory **EJ15U** 200 channel memory **EME11** Ear-phone mic with PTT/VOX, **EME12** Headset/earphone/microphone with VOX, **EME13** Headset/ear bud/microphone with VOX, **EME15** Earphone/microphone with VOX, **EME16** Tie-pin microphone with earphone, **EME17** Boom earphone microphone, **EME6** Earphone, **ESC18** Case for EBP26N, **ESC19** Case for EBP28N

FREE ITEMS included with some radios. See Price Guide for details.

we have a **SECURE** web site at **www.aesham.com**

ALINCO

AMATEUR RADIO'S VALUE LEADER™

SINGLE BAND HANDHELDS

DJ-S11T **Sub-Miniature VHF HT** TX/RX: 144–148MHz • 340 mW output • 20 multi-function memories plus 1 call • Encoder installed (50 tones) • Illuminated display • Use 3 AA or NiCad battery • Pivoting antenna • 4"h x 2"w x 1"d, 6.5 oz..... **$79.99**

DJ-S41T **Sub-Miniature UHF HT** Same features and specifications as the DJ-S11T but covers 425–449.995MHz..... **$79.99**

Available Accessories

EBC6 Mobile HT bracket, **EDC78** Wall charger (not alkaline), **EDH18** 12V/5.5V DC cigarette lighter plug, **EME12** Headset/ eaphone/microphone with VOX, **EME13** Headset/ear bud/microphone with VOX, **EME15** Earphone/microphone with VOX, **EME16** Tie-pin microphone with earphone, **EME17** Boom earphone microphone, **EME6** Earphone, **EMS47** Speaker microphone with volume control, **ESC27** Soft case

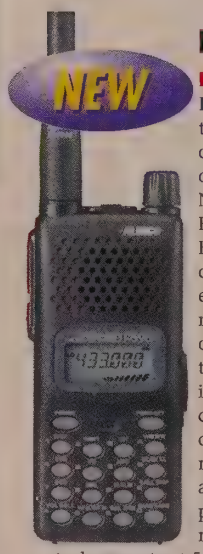
DJ-196T 2M HT 5W output • 135-174MHz rx • 40 multi-function memory channels • MAR/CAP capability • Alphanumeric display • CTCSS tone encode/decode and DCS • S-meter • Auto dialer • Cable cloning • PC programming capability • Theft alarm • Experimental insect repel • Back lit keypad • 4.9"h x 2.2"w x 1.6"d, 13.2 oz.... **$139.99**

DJ-496T 440 HT Same as the DJ-196T (above) except has a range of 430-450MHz..... **$149.99**

Available Accessories

EBC6 Mobile HT bracket, **EBP48N** 9.6V 700mA 5W NiCad battery, **EBP50N** 9.6V 700mA 5W NiMH battery, **EDC16B** Cigarette lighter cable and filter, **EDC36** Angle plug power cable with filter, **EDC37** 13.8V power cable, **EDC43** Cigarette lighter cable, **EDC88** Rapid charger, **EDH30** Dry cell battery case, **EME12** Headset/eaphone/microphone with VOX, **EME13** Headset/ear bud/ microphone with VOX, **EME15** Ear-phone/microphone with VOX, **EME16** Tie-pin microphone with earphone, **EME17** Boom earphone microphone, **EME6** Earphone, **EMS47** Speaker microphone with volume control, **ERW4** PC cable, **ESC36** Soft case for EBP48N

DUAL BAND HANDHELDS



DJ-596T **2M/440MHz Dual Band HT** The first Amateur HT to support optional digital voice communications. • 5W output on both bands with standard NiMH battery • Wide or narrow FM • Digital voice with optional EJ-43U board • Extended receive capabilities • CTCSS and DCS encode/decode • Three scan modes • Work and save in memory any number of "odd split" transmit/receive offsets • Illuminated keys and display • Large display shows alphanumeric designations for each of the 100 memory channels • Theft alarm and experimental "mosquito repelling sound" • Nine autodial memories • External terminal control can output 5 VDC @ 5mA from the mic jack, which can be used by experimenters to control external devices • Operates on 6-16 VDC, battery also charges while on external power source • 4.9"h x 2.2"w x 1.6"d, 13.2 oz..... **$209.99**

Available Accessories

EBC6 Mobile HT bracket, **EBP48N** 9.6V 700mA 5W NiCad battery, **EBP50N** 9.6V 700mA 5W NiMH battery, **EDC16B** Cigarette lighter cable and filter, **EDC36** Angle plug power cable with filter, **EDC37** 13.8V power cable, **EDC43** Cigarette lighter cable, **EDC88** Rapid charger, **EDH30** Dry cell battery case, **EJ43U** Digital board, **EME12** Headset/eaphone/microphone with VOX, **EME13** Head-set/ear bud/ microphone with VOX, **EME15** Ear-phone/microphone with VOX, **EME16** Tie-pin microphone with earphone, **EME17** Boom earphone microphone, **EME6** Earphone, **EMS47** Speaker microphone with volume control, **ERW4** PC cable, **ESC36** Soft case for EBP48N

DJ-596T 2m+440 HT

NEW!

Our new dual-bander, up to 5 watts output, 100 memories, CTCSS and DCS encode+decode, NiMH battery, wide & narrow FM modes, 13.8 VDC direct input, illuminated keys and display, autodial memories, theft alarm, optional digital voice board and more!

DJ-V5TH, DJ-V5TDC(H) 2m/440 HT*

Great 2m/440 TX & RX, extended RX range from 76 ~ 999 MHz, includes wide band FM, alphanumeric display, 200 memories, CTCSS & DCS encode+decode, 5 watts output, compact size, 4 scan modes, 5 scan banks, split-band operation for satellite ops, auto-dialer, 13.8 VDC direct input. DJ-V5TDC has see-through ice-blue case, illuminated panel and see-through dry-cell pack. DJ-V5TDCH comes with additional NiCd battery pack & charger.

DJ-196T (2m), DJ-496T (440 MHz) HT

NEW!

New! Backlit keypad, alphanumeric display, 40 memories, CTCSS and DCS encode+decode, auto dialer, theft alarm, 13.8 VDC input, experimental mosquito-repel tone and more! High-power battery is standard.

Alinco – The Name You Trust for Value!

DJ-S11T (2m), DJ-S41T (440) DJ-S46T (FRS) HT

"Pager size" transceivers, 340 mw output, great TX and RX audio. Self-storing pivot antenna, uses AA batteries, fits in pocket or purse. Ham transceivers have 21 memories, FRS unit covers all FRS channels. CTCSS encode included on all models. Amazing low price! Mobile DC cable and speakers mics also available.

DJ-C5T 2m/440 "Credit Card" FM HT

"Credit Card" size, internal speaker, 50 memories, CTCSS encode+decode, AM airband RX, 300 mw output, soft case, 600 mAh lithium-ion battery, rapid charger included!

DR-135T/TP (2m), DR-235T (222 MHz), DR-435T (440 MHz) Mobile/Base

NEW!

NEW! DR-135 also includes AM Airband RX. DR-235 and DR-435 have new multifunction mic with direct frequency input. All models feature 100 memories, ignition key on/off, theft alarm, large 7 character alphanumeric display, optional internal packet TNC can be used for regular packet or APRS™, true 9600 packet mode, front panel data/GPS input, rear panel DSUB9 connector, H/M/L power output settings, 10 autodial memories, CTCSS and DCS encode+decode, backlit mic, sturdy construction, optional digital voice communications board and more!

DR-605TQ 2m/440 FM Mobile/Base

Value Leader! 50 watts VHF/35 watts UHF, 51 memories/band 430 ~ 449.995 MHz range allows satellite work, crossband repeater operation, 9600 packet port. Check the super low price! Dual band, dual RX.

DR-M06TH (6m/20 watts) FM Mobile/Base

Enjoy local and DX FM contacts. Great for simplex or repeater operations. Includes CTCSS encode (optional decode) and 100 memories.

DX-70TH (100w) HF + 6m Mobile/Base/Portable

160 ~ 6m Amateur band TX in all modes, general coverage RX from 150 KHz ~ 30 MHz and 50 ~ 54 MHz, removable face plate, 2 VFOs, 100 memories, speech compressor, SSB, CW and AM narrow filters, full, semi or automatic break-in, multi-function control and MUCH more! Ask about EDX-2 antenna tuner and DM-330 MVT power supply.

DX-77T HF Base/Portable

160 ~ 10m Amateur Band TX in all modes. Clean, crisp RF modulation, easy to operate. Low noise floor from DDS, 500 KHz ~ 30 MHz general coverage RX, 2 VFOs, internal keyer (6 ~ 50 wpm) 100 memories, 13.8 VDC input speech compressor, CTCSS encode for 10 m operation, CW filter standard. Ask about EDX-2 antenna tuner and DM-330 MVT power supply.

www.alinco.com

Distributed in North America by ATOC Amateur Distributing LLC • 23 S. High St., Covington, OH 45318 • (937) 473-2840

*Cellular excluded. Product intended for properly licensed operators. Permits required for MARS/CAP use. Specifications subject to change without notice or obligation. Performance specifications only apply to amateur bands. APRS is a registered trademark of Bob Bruninga, WB4APR.

ALINCO

AMATEUR RADIO'S VALUE LEADER℠

DJ-C5T Credit Card Sized 2M/440MHz Dual Band HT 300mw output • TX: 144–147.995 & 420–449.995MHz • RX: 118–173.995 and 420–449.995MHz • 50 memories • CTCSS tone enc/dec standard • Volume/squelch control • Keylock • Auto power off with Morse Code alert • Mic/earphone jack • TX lamp • Free offset • Reverse monitor • Scan function with skip setting • Multi Euro tone bursts • Battery save & channel display modes • AM aircraft receive with expanded VHF wideband reception • Rechargeable 3.8V lithium-ion battery • 2-hour "snap-in" charger • Soft case • 3.75"h x 2.25"w x 0.43"d, 3 oz..... **$149.99**

Available Accessories

EDC16B Cigarette light cable with filter, **EDC36** Angle plug power cable with filter, **EDS7** Microphone adapter, **EME12** Headset/earphone/microphone with VOX, **EME13** Headset/ear bud/microphone with VOX, **EME15** Earphone/microphone with VOX, **EME16** Tie-pin microphone with earphone, **EME17** Boom earphone microphone, **EME18** Earphone, **EMS49** Mini lapel speaker microphone, **EMS50** Speaker microphone, **ESC34** Soft case with belt clip

DJ-V5TH VHF/UHF Dual Band FM HT Full 2 meter and UHF Amateur band coverage • Standard high-power 700 mAh NiCad battery pack – up to 5W output • 3 output settings • Expandable receive range 76–999MHz (cellular blocked), includes wide FM capability • Split-band operation capability • Eight different tuning steps • Alpha-numeric display – up to 6 characters • 200 memory channels plus two call channels • CTCSS encode/decode • DTMF squelch • 4 different European tone bursts • 4 scan modes and 5 programmable scan banks • MARS/CAP capability • Auto-dial memories • Auto high temperature protection feature • SMA antenna connector • Wire cloning capable • Accepts up to 13.8V DC input • 4.5"h x 2.25"w x 1.75"d, 13 oz **$209.99**

DJ-V5TDCH Includes all the features of the DJ-V5TH but is housed in a blue see-through case which shows off the internal components. Comes with a see-through alkaline battery case, black NiCad battery and charger..... **$229.99**

Available Accessories

EBP45N 6V 700mA 2W NiCad battery, **EBP46N** 9.6V 600mA 5W NiCad battery, **EDC16B** Cigarette light cable with filter, **EDC36** Angle plug power cable with filter **EDC37** 13.8V power cable **EDC43** Cigarette lighter cable, **EDC91** Quick charger, **EDH29** Dry cell battery case, **EME12** Headset/ earphone/microphone with VOX, **EME13** Headset/ear bud/microphone with VOX, **EME15** Earphone/microphone with VOX, **EME16** Tie-pin microphone with earphone, **EME17** Boom earphone microphone, **EME6** Earphone, **EMS47** Speaker mic with volume control, **EMS8Z** Remote speaker mic, **ESC35** Soft case for EBP45N/46N

ICOM

2M SINGLE BAND HANDHELDS

IC-2GXAT/HP 2M Transceiver 7W output @ 13.5 V DC • 144-148MHz rx (136-174MHz expandable) • 40 mem. channels • 700mAh battery • Auto repeater operation • Tone scan • DTMF redial and five auto dial memories • 350 mW audio • Selectable DTMF speed • Built-in PL enc/dec • 35mA current drain • 2.2"w x 4.9"h x 1.4"d, 12.9 oz..... **$249.99**

Available Accessories

AD25 Battery charger adapter, **AD28** Battery pack adapter/rapid charger, **BC105A** Wall charger, **BC11911** Desk charger, **BP130A** Battery case, **BP157A** 900MA 7.2V battery, **BP174** 600mA 12V battery, **CP13** Cigarette cable with filter, **CP13L** Right angle cigarette cable with filter, **HM128** Earphone + mic, **HM46** Slim-line speaker mic, **HM46L** Slim-line speaker mic with right angle plug, **HM54** Heavy-duty speaker mic, **HS51** Headset/VOX, **LC116** Case for 2GXAT/BP130/157A/160, **LC117** Case for 2GXAT/BP132A, **MB30** Mobile or wall bracket, **OPC288** Mini DC power cord, **SP13** Earphone, **UT49** DTMF decoder

IC-T2H 2 Meter Handheld 6W output @ 9.6 V DC • 136-174MHz receive • 43 memory channels • Tone squelch (CTCSS enc/dec) standard, with pocket beep and tone scan • 8 programmable keys • 5 DTMF memory channels, with up to 32 digits codes and redial for autopatching repeaters • 10 weather channels • Direct keypad frequency entry • Backlighted LCD display • Auto repeater function • "Intuitive" help function (display directs user what to do next when making selections) • 2-step power save function • Monitor function • Lock function • One-piece, die-cast aluminum chassis and super tough polycarbonate casing • Meets MIL SPEC C/DE for shock and vibration • Includes recharg-eable "AA" NiCads and charger, or use alkalines • 2.3"w x 5.5"h x 1.3"d, 14.8 oz..... Closeout **$139.99**

IC-T2H SPORT The same as the T2H above without a rechargeable battery or charger. Does include battery holder..... **$99.99**

Available Accessories

AD81 Adapter for BC11911, **BC110A** Wall charger, **BC11911** Desk charger, **BC122A** AC adapter for BC133, **BC133** Drop-in trickle charger, **BP194** "AA" alkaline battery case, **BP195** 700mA 9.6V battery, **BP196** 1050mA 9.6V battery, **CP12L** Right angle cigarette cable with filter, **CP17L** Right angle cigarette cable for charger, **CST2** DOS programming software, **CSWHH4** Windows software with cable, **HM128** Earphone + mic, **HM46** Slim-line speaker mic, **HM54** Heavy-duty speaker mic, **HM75A** Remote control mic, **HS51** Headset/VOX, **HS94** Earpiece headset/use with VS1L, **LCF3GSWIVEL** Leather case with swivel, **LC145** Carrying case, **MB74** Spring loaded belt clip, **OPC254L** Right angle mini DC power cable, **OPC474** Radio-to-radio clone cable, **OPC478** PC cable, **SP13** Earphone, **VS1L** VOX-PTT unit for HS94

With the IC-T2H & a PC you can download stored frequencies, like those in a repeater directory, from your PC directly into the IC-T2H. Take up to 40 pre-programmed frequencies with you! PC-to-IC-T2H and IC-T2H-to-IC-T2H cloning requires optional software and cables.

IC-T22A 2 Meter Handheld 5W output @ 13.5 V • 4.0 - 16 VDC input • 136-174MHz rx • Auto low power/power saver (15mA drain) • Remote control microphone (optional HM-75A) • 80 memory channels (40 with alpha display) • VHF/UHF air band receive • Auto repeater function • Backlit display • Die cast aluminum frame and heat sink • Optional tone scan • 2.3"w x 4.3"h x 1. 1"d, 10.9 oz ... Closeout **$229.99**

Available Accessories

AD56 Battery pack adapter/rapid charger, **BC110A** Wall charger, **BC11911** Desk charger, **BP170** Battery case, **BP172** 950mA 4.8V battery, **BP173** 600mA 9.6V battery, **BP180** 600mA 7.2V battery, **CP12** Cigarette cable with filter, **CP12L** Right angle cigarette cable with filter, **FA1443B** 2M/440 duck, **HM128** Earphone + mic, **HM46** Slim-line speaker mic, **HM46L** Slim-line speaker mic with right angle plug, **HM54** Heavy-duty speaker mic, **HM75A** Remote control mic, **HS10** Boom mic/headset, **HS10SA** VOX unit, **HS10SB** PTT switchbox, **HS85** Headset with VOX, **LC125** Case for T22A with BP170/71/72, **LC126** Case for T22A with BP173, **MB30** Mobile or wall bracket, **NCP1** Nylon chest pack, **OPC254** Mini DC power cable, **OPC254L** Right angle mini DC power cable, **SP13** Earphone, **UT94** Tone squelch

IC-V8 2 Meter FM Handheld ICOM's first amateur 2m handheld radio with CTCSS/DTCS encode/decode with tone scan. Retro design brings back memories of the popular IC-2AT. You will not find a 2 meter handheld that is easier to use. • 144-148MHz • Full 5.5W output from standard battery • NEW! Acoustical design for the best-audio • 100 alphanumeric memory channels with easy recall • Scans 40 channels per second • Zoom through your personalized scan ranges • Customize operatation using the up/down and rotary controls • Perfectly designed for any size hand with a full sized keypad to accommodate larger fingers • Comes with BC-146 drop-in trickle charger • Operates from 12VDC either in the home or in the car; charge radio with battery or battery alone • Use a PC to set-up operating parameters using CS-V8 computer software • Durable green polycarbonate front panel and aluminum die-cast chasis built to military-grade specs • 2.125"w x 5.188"h x 1.375"d, 12.3 oz..... **$169.99**

Available Accessories

BC14401 Desk charger with adapter, **BP208** Battery case, **BP209** 7.2V 1100mA 5.5W battery, **BP210** 7.2V 1650mA 5.5W battery, **BP222** 7.2V 600mA 5.5W battery, **CP17L** Right angle cigarette cable for charger, **CSV8** Cloning software, **HM46L** Slim-line speaker mic with right angle plug, **HM54** Heavy-duty speaker mic, **HM75A** Remote control mic, **HS51** Headset/VOX, **HS94** Earpiece headset/use with VS1L, **LCF3GSWIVEL** Leather case with swivel, **MB74** Spring loaded belt clip, **OPC474** Radio-to-radio clone cable, **OPC478** PC cable, **OPC515L** Right angle DC cable for charger, **SP13** Earphone, **UT108** DTMF decoder unit, **VS1L** VOX-PTT unit for HS94

FREE ITEMS included with some radios. See Price Guide for details.

IC-R75

Pull out the weak signals

30 kHz - 60.0 MHz

Commercial grade • synchronous AM detection (S-AM) • optional DSP with auto notch filter • all mode • triple conversion • twin passband tuning (PBT) • front mounted speaker • large display • well spaced keys and dials • 1000 memory channels • up to two optional filters • PC remote control with ICOM software for Windows®.

"A versatile HF/6-meter receiver that offers a good measure of performance in a compact package. All mode capability for the ham and utility listeners and synchronous AM for the SWLs should make the IC-R75 a popular choice for a wide variety of radio enthusiasts."– QST, 1/00

IC-R10

Advanced performance and features

500 kHz – 1.3 GHz†

All mode • alphanumeric backlit display • attenuator • 7 different scan modes • beginner mode • 1000 memory channels; band scope • includes AA Ni-Cds and charger.

IC-R2

Excellent audio, tiny package

500 kHz – 1.3 GHz†

AM, FM, WFM • easy band switching • CTCSS decode • 400 memory channels • priority watch • MIL SPEC 810C/D/E • weather resistant • includes 2 AA Ni-Cds and charger.

IC-R3 AUDIO/VIDEO SCANNER

See and Hear all the action.

500 kHz – 2.45 GHz†

450 Memory Channels with Alphanumeric Names • CTCSS with Tone Scan • 4 Level Attenuator • Telescoping Antenna with BNC Connector • Four Way Action Joystick • Lithium Ion Power • 2" Color TFT Display with Video/Audio Output.

"Wide tuning range allows you to see and hear the excitement behind the scenes. Large easy to read color display for frequency settings and video reception. All in a compact easy to carry package. Perfect for sporting events and commercial uses."

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download frequencies right from the web

www.icomreceivers.com

ICOM makes it easy to get the frequencies you want. Our database searches your area. You download the frequencies to your computer and easily load them into your ICOM radio. Optional software and PC connection cable required.

DOWNLOAD FREQUENCIES

RIGHT FROM THE WEB

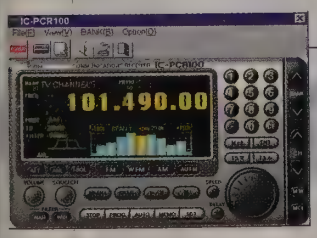
IC-PCR1000

The original "black box" is still best

100 kHz – 1.3 GHz†

AM, FM, WFM, USB, LSB, CW • unlimited memory channels • real time band scope • IF shift • noise blanker • digital AFC • "VSC" voice scan control (when activated, stops only on modulated signals) • attenuator • tunable bandpass filters • AGC function • S meter squelch • CTCSS tone squelch • large selection of tuning steps and scans • external speaker level control • DSP optional • download and demo the latest software for free at <www.icomamerica.com>

"The PCR1000 has something to intrigue and satisfy everyone. This is a fun product."– QST, 7/98



IC-PCR100

Much like its big brother, but for less

100 kHz – 1.3 GHz†

AM, FM, WFM • many of the same features as the IC-PCR1000 • designed for Windows® 95 or 98 • download and demo the latest free, full version software today: <www.icomamerica.com>

IC-R8500

The experts choice

100 kHz - 2.0 GHz†

Commercial grade • all mode • IF shift • noise blanker • audio peak filter (APF) • selectable AGC time constant • digital direct synthesis (DDS) • 1000 memory channels • RS-232C port for PC remote control with ICOM software for Windows®.

"If you want a receiver that is both a superior world band radio and a solid scanner, the new ICOM IC-R8500 is the best choice."
– Passport to World Band Radio, 1998

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ICOM

DUAL BAND HANDHELDS

IC-Q7ABC **Ultra Compact 2M/440MHz Dual Band HT with Full Feature Scanner** Extra easy to use and wide FM performance • Output power: 350mW (VHF), 300mW (UHF) • Transmit: 144–148MHz and 440–450MHz triple conversion • Receive: 30–1300MHz (cell blocked on U.S. model) • 200 memory channels • Superior audio in its class from large 1.4" speaker and 100mW audio output • CTCSS tone encoder/ decoder with pocket beep • Easy to use – only 7 buttons (including power) and a large, easy to grasp tuning dial • Automatic repeater function • Channel operation • Tone scan • 10 tuning steps • Easy reverse • Dual watch • RIT function • Auto power OFF power saver • Manually or automatically controlled LCD back lighting for easy low light operation • Meets MIL-SPEC C/D/E for shock and vibration • Includes 2 "AA" size Ni-Cd batteries, or use "AA" alkaline batteries • 2.3"w x 3.75"h x 1.1"d, 6 oz **$129.99**

Available Accessories

AD92SMA SMA-BNC adapter, **BC127A** Charger for 2 or 4 "AA" NiCads, **HM128** Earphone + mic, **HM46** Slim-line speaker mic, **HS85** Headset with VOX, **LC146** Carrying case, **OPC782** Plug adapter cable, **SP13** Earphone

IC-T7H 2M/440MHz **Dual Band HT** 5W output with a standard BP-173 battery pack (9.6V/ 650mAh) • Up to 6W output @ 13.5V DC (optional DC power cable required) • Transmit 144-148MHz and 440–450MHz; Receive 118–174MHz and 400–470MHz • More than 250mW audio output • One-touch band switching • Priority watch - Monitor a frequency on the same band or a different band • 70 memory channels • 9 DTMF memories for auto dialing • CTCSS tone encode/decode • 50 independently programmable tone frequencies • Auto power saver with selectable duty • Auto repeater function • Auto power OFF function • Thumb-touch lock settings feature • Internal guide function • LCD backlighting for easy night operation • Wall charger included • PC programmable (optional CS-T7 software required) • 2.3"w x 4.8"h x 1.1"d, 14.3 oz **$199.99**

Available Accessories

AD56 Battery pack adapter/rapid charger, **BC11911** Desk charger, **BP170** Battery case, **BP172** 950mA 4.8V battery, **BP173** 600mA 9.6V battery, **BP180** 600mA 7.2V battery, **CP12** Cigarette cable with filter, **CP12L** Right angle cigarette cable with filter, **CST7** DOS programming software, **CSWHH4** Windows software with cable, **FA1443B** 2M/440 duck, **HM128** Earphone + mic, **HM46** Slim-line speaker mic, **HM46L** Slim-line speaker mic with right angle plug, **HM54** Heavy-duty speaker mic, **HM75A** Remote control mic, **HS10** Boom mic/headset, **HS10SA** VOX unit, **HS10SB** PTT switchbox, **HS85** Headset with VOX, **LC136** Case for T7H with BP170/171/172, **LC137** Case for T7H with BP173/180, **MB30** Mobile or wall bracket, **NCP1** Nylon chest pack, **OPC254** Mini DC power cable, **OPC254L** Right angle mini DC power cable, **OPC478** PC cable, **SP13** Earphone

IC-W32A 2M/440MHz **Dual Band HT** 5W output @ 13.5V DC • 144-148, 440-450 transmit; 118-174, 400-470 receive • 200 memory channels • 8 character alpha-numeric memory channel identification • Key-pad entry • Backlit display and keypad • Handheld-to-handheld cloning capability with optional OPC-474 cable or PC programming capability with optional CS-W32 cloning software and OPC-474 cable • In-dependent band controls for tuning and volume • VHF/ UHF exchange function allows assignment of VHF/UHF band controls to either knob – set preferred band to the knob furthest from the antenna • Meets MILSPEC C/D/E for shock and vibration • 2.25"w x 5.5"h x 1.4"d, 16 oz **$269.99**

Available Accessories

AD51 Battery pack adapter/rapid charger, **BC110A** Wall charger, **BC11911** Desk charger, **BP170** Battery case, **BP172** 950mA 4.8V battery, **BP173** 600mA 9.6V battery, **BP180** 600mA 7.2V battery, **CP12** Cigarette cable with filter, **CP12L** Right angle cigarette cable with filter, **CSWHH4** Windows software with cable, **CSW32** DOS programming software, **FA1443B** 2M/440 duck, **HM128** Earphone + mic, **HM46** Slim-line speaker mic, **HM46L** Slim-line speaker mic with right angle plug, **HM54** Heavy-duty speaker mic, **HM75A** Remote control mic, **HS10** Boom mic/headset, **HS10SA** VOX unit, **HS10SB** PTT switchbox, **HS85** Headset with VOX, **LC128** Carrying case, **MB30** Mobile or wall bracket, **NCP1** Nylon chest pack, **OPC254** Mini DC power cable, **OPC254L** Right angle mini DC power cable, **OPC474** Radio-to-radio clone cable, **OPC478** PC cable, **SP13** Earphone

MULTI BAND HANDHELDS

IC-T81A 6M/2M/440MHz/ **1.2GHz Quad Band** 4.5W w/ supplied BP-200 • Up to 5W output @ 13.5V DC (1W on 1.2GHz) • Transmits: 6M, 2M, 440MHz, 1.2GHz • Wide band receive: 50–54MHz, 74–174 MHz, 400–470MHz, 1240–1300MHz (cell blocked) • Broadcast FM receive (some TV) • Airband receive • 124 memory channels, 10 scan edges and 1 call per band • Tone squelch/scan (CTCSS enc/dec) • DTMF encoder, 9 memories • Backlit display with timer • Built-in guide function • Ni-MH powered; wall charger included • Battery voltage indicator • RIT/XIT (VXO) for 1.2GHz (±5kHz in 1kHz steps) • Multi-function "joystick" switch • HT-to-HT cloning capability w/opt. cable • PC programmable w/opt. software and cable • Water resistant to JIS grade 4 • 2.3"w x 4.2"h x 1.1"d, 9.9 oz **$279.99**

Available Accessories

AD87 Battery pack adapter/rapid charger, **AD88** PCB board, **AD92SMA** SMA-BNC adapter, **BC11931** Desk charger, **BP197** 3 "AA" battery case, **BP198** 700mA 4.8V NiMH battery, **BP199** 700mA 6V NiMH battery, **BP200** 680mA 9.6V NiMH battery, **BP200L** 760mA 9.6V NiMH battery, **CP12** Cigarette cable with filter, **CP12L** Right angle cigarette cable with filter, **CST81** Windows cloning software, **HM128** Earphone + mic, **HM46** Slim-line speaker mic, **HM54** Heavy-duty speaker mic, **HM75A** Remote control mic, **HS51** Headset/VOX, **HS85** Headset with VOX, **LC148** Carrying case, **OPC254** Mini DC power cable, **OPC254L** Right angle mini DC power cable, **OPC474** Radio-to-radio clone cable, **OPC478** PC cable, **SP13** Earphone

KENWOOD

SINGLE BAND HANDHELD

TH-22ATH 2M FM Handheld This is a super-compact and lightweight transceiver with impressive performance. EZ to use menu system. Palm-sized, sharply styled, easily slips into pocket. • 5W output from MOS FET power module and standard PB-34 Ni-Cd battery • 136-174 receive • RF output control (Hi/Low/EL) • 144–148MHz coverage • 40 memory channels stored in E²PROM (plus 1 call channel) • Auto repeater offset • Multiple scan functions (VFO, call and memory) • Dual Scan stop modes (CO and TO) • CTCSS encode • DTSS and page • Luminescent keypad and LCD with backlighting • Built-in DTMF keyboard • (5) 15-number DTMF memories • Tone Alert with time indicator • Selectable squelch configuration • Busy channel lock out • Battery voltage indicator • Automatic power off • Drop-in desktop charger • 2.1"w x 6.1"h x 1.12"d, 11 oz **$219.99**

Available Accessories

BT9 Four "AA" battery holder, **EMC3** Label clip mic/earphone PC, **HMC3** VOX/boom mic headset, **KSC14** 2 pack rapid charger, **KSC8A** Drop-in charger, **PB33** 1200mA 6V battery, **PB34** 600mA 9.6V 5W battery, **PG2W** DC cable, **PG3J** Cigarette cord with filter, **SMC32** Mini right angle speaker mic, **SMC33** Speaker mic with remote control, **SMC34** Speaker mic with volume function keys, **TSU8** CTCSS decoder, **WR2** Water resistant bag

DUAL BAND HANDHELDS

TH-79AKSS 2M/440MHz **Dual Band Handheld** MOSFET FET power module • 5W output on both bands with standard PB-34 Ni-Cd battery or 13.8V DC • FET power module for longer operating times per charge • 3-position output power control (high, low, economy low) • 2M: 144–148MHz with extended receive 118–174MHz; 440MHz: 438–450MHz • 82 non-volatile memory channels with ID – store 7 characters with each channel • Auto repeater offset (VHF) • Cross-band repeater function with full duplex • Ability to receive two frequencies on the same band (VHF+ VHF, UHF+ UHF) simultaneously • CTCSS enc/decoder • Dot-Matrix LCD and user friendly menu system • Alphanumeric access to guide function (no need to carry a manual) • Wireless cloning • Modifiable for MARS/CAP (permits required) • Auto power-off and battery save function • 5.1"h x 2.1"w X 1.3"d, 11.6 oz **$379.99**

Available Accessories

BT9 4AA battery holder, **EMC3** Lapel clip mic earphone PC, **HMC3** VOX/boom mic headset, **KSC14** 2 pack rapid charger, **KSC8A** Drop-in charger, **PB33** 1200mA 6V battery, **PB34** 600mA 9.6V 5W battery, **PG2W** DC cable, **PG3J** Cigarette cord with filter, **SC41** Soft case for 79AKSS with PB32, **SC43** Soft case for TH79 with PB33/34, **SMC32** Mini right angle speaker mic, **SMC33** Speaker mic with remote control, **SMC34** Speaker mic with volume function keys

New IC-V8: It'll Take You By Storm

WHEN THE SKY TURNS DARK, TURN TO ICOM's NEW IC-V8

Easy to Use. The compact size of the 'V8 is just right; full function DTMF keys are well spaced and large enough to allow quick operation, especially when you're out on the go. An initial set mode and alphanumeric display allows for fast, frequency access and response.

Excellent Audio. Due to its acoustic design, the 'V8 has excellent recovered audio. Loud, clear and intelligible with no distortion - you won't miss any of the action with this rig.

5.5 Watts Out of the Box. You need plenty of power to punch through rugged terrain or carry a signal to the horizon. The 'V8 delivers, whether you stick with the standard Ni-Cd pack or upgrade to the available Ni-MH battery. An alkaline case is optional.

CTCSS/DTCS and Tone Scan, standard. Get onto the repeater, fast! 50 CTCSS and 38 DTCS codes gain you quick repeater access and eliminate unrelated chatter. Pocket beep keeps track of calls, and tone scan detects the subaudible tone. Don't know the input tone? The 'V8 will find it and give you the info you need!

DTMF Encode, standard. 5 DTMF memory channels with up to 24 DTMF codes allow for remote operation. Great for phone patch! An optional DTMF decoder unit (UT-108) provides code squelch operation and pager function.

Mil Spec Rugged. The 'V8 is a land mobile grade radio, built solid and ready to tackle the elements.

BC-146 Drop In Charger included!

BC-146 Drop In Trickle Charger comes as standard equipment with the IC-V8. CP-17L & OPC-515L vehicle power adapters are both optional.

Whether you're chasing storms, working a repeater, or just ragchewing with your buddies, the new IC-V8 is the HT for you. For more information visit AES, visit www.icomamerica.com or call our literature hotline at 425-450-6088.

IC-V8. Tough. Simple. Green.

144-148 MHz TX • 136-174 MHz RX • 5.5/0.5W selectable • 107 Memory Channels • Fast Scanning-40 Ch/Sec • 300mW Audio Output • CTCSS/DTCS • DTMF Encode • Reverse Shift Function • Backlit LCD • Alphanumeric Display • Auto Repeater • Reversible Up/Down Switch & Rotary Selector • Drop-In Charger • PC Programmable*

More Storm Spotting Radios

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KENWOOD

TH-D7A(G) 2M/440MHz Dual Band Data Communicator Equipped with a built-in TNC for simple packet operation or with a GPS as a full function APRS™. Reports position, speed and heading as well as calculation of distance to destination. Can also be used for APRS™ messaging – send up to 45 character messages without a PC. Advanced functions possible with the VC-H1 • 5.5W output @ 13.6V DC • 2M: 144–148MHz tx, 118–174MHz rx • 440MHz: 430– 450MHz tx, 400–480MHz rx • 1200/9600 baud TNC • Station list stores data in up to 40 memory channels • Grid square locator display • Dual receive on same band for voice and data (VHF only) • 200 mem. channels • PC programmable for frequency and name (PG-4W required) • 16 backlit keys • CTCSS enc/decode • MIL-SPEC 810C/ D/E water resistant • 10 channel DTMF phone and auto patch memories • TM-V7A and TM-742D DTMF remote • Altitude • Time • 3-position memory • NMEA9600 • 3-memory text • Position ambiguity • Audible emergency signal • Auto message response • Data band settings • 1750MHz packet burst • 4.75"h x 2.25"w x 1.5"d, 12 oz..... **$419.99**

Available Accessories

BC19 Rapid charger, **BT11** Four "AA" battery holder, **EMC3** Lapel clip mic/earphone PC, **HMC3** VOX/boom mic headset, **J29063113** Belt clip, **PB38** 650mA 6V NiCad battery, **PB39** 600mA 9.6V 5W battery, **PG2W** DC cable, **PG3J** Cigarette cord with filter, **PG4V** VCH1 connector cable, **PG4W** PC software and cable, **SC47B** Black soft case, **SC47OR** Orange soft case, **SMC32** Mini right angle speaker mic, **SMC33** Speaker mic with remote control, **SMC34** Speaker mic with volume function keys

FREE ITEMS included with some radios. See Price Guide for details.

TH-G71A Dual Band FM HT Its ergonomic design, illuminated and back lit display all combine to make operation a breeze. The EZ to use menu system gives full control over all operating settings. • 6W (VHF), 5.5W (UHF) @ 13.8V DC • 2M: 144–148 tx/rx and 118–174 MHz ext. receive including Aircraft, 440MHz: 430–450MHz tx and 400–470MHz rx • 200 multi-function memory channels • Memory name function • Multiple scan modes • CTCSS tone scan • DTMF memory (10 channels) • DTMF remote control • Function key lock • Auto battery saver circuit • Auto power-off • TIme-out timer • Illuminated keypad • PC ready • High performance antenna • TM-V7A remote control • MIL-STD 810E approved • 2.3"w x 4.4"h x 1.3"d, 11.6 oz..... **$269.99**

Available Accessories

BC19 Rapid charger, **BT11** Four "AA" battery holder, **EMC3** Lapel clip mic/earphone PC, **HMC3** VOX/boom mic headset, **J29063113** Belt clip, **PB38** 650mA 6V NiCad battery, **PB39** 600mA 9.6V 5W battery, **PG2W** DC cable, **PG3J** Cigarette cord with filter, **PG4P** PC control cable, **SC45** Soft case for G71A with PB38/39, **SMC32** Mini right angle speaker mic, **SMC33** Speaker mic with remote control, **SMC34** Speaker mic with volume function keys, **WR2** Water resistant bag

TRIBAND HANDHELD

TH-F6A FM Triband HT Covers 144/220 & 440MHz amateur bands plus 0.1-1300 range cell blocked (including AM Aircraft receive). • Dual-channel receive capability - receives 2 frequencies simultaneously even on the same band • FM/FM-W/FM-N/AM plus SSB/CW receive • Ferrite bar antenna for receiving AM broadcasts • Special weather channel RX mode • 435 memory channels (8 groups of 50 channels) • 3 call channels plus 20 for programmable scan • Multiple scan functions • 7.4V 1550 mAh lithium-ion battery for 5W output and extended operation • 16-key backlit pad plus multi-scroll key • Built-in charging circuitry – battery recharges while unit opertaes form a DC supply • Built-in CTCSS enc/decode/DCS • Large 8-character alphanumeric frequency display • Wireless remote control • Battery indicator • Internal VOX • MCP programming software via web (using PG-4P) • Meets MIL-STD 810 C/D/E for resistance to vibration, shock and light rain • 3.438"h x 2.313"w x 1.188"d, 8.8 oz (with battery)..... **$389.99**

Available Accessories

BT13 AA battery case, **EMC3** Lapel clip mic/earphone PC, **HMC3** VOX/boom mic headset, **PB42L** Lithium ion battery, **PG2W** DC cable, **PG3J** Cigarette cord with filter, **PG4P** PC control cable, **SC51** Softcase with swivel belt clip, **SMC32** Mini right angle speaker mic, **SMC33** Speaker mic with remote control, **SMC34** Spker mic with volume function keys

we have a SECURE web site at www.aesham.com

VISUAL ACCESSORY

VC-H1 SSTV Visual Communicator A compact and easy to use portable SSTV unit that is compatible with FM VHF/UHF transcievers along with FM and SSB HF modes. Receive digital images quick (17 seconds download @ 9600 baud). For camping trips, Field Day, or disaster communication. Imagine sending images across town or across the world on VHF/UHF. It also integrates with your PC to store and label all your favorite pictures for future transmission. 1/4-inch, 270,000-pixel CCD camera • 360-degree rotatable and detachable camera head • 1.8-inch TFT color LCD monitor. Up to 10 picture memory • Built-in microphone and speaker • Connect to a Kenwood handheld, mobile or HF transceiver with an optional cable • Computer connectivity with an optional connection kit • AA alkaline or 110 volt AC adapter operation • Operates all Slow Scan modes • Callsign superimpose • Auto Power Off • Transmits to another radio or PC (with power supply and software) • Accepts camera input..... **$399.99**

Available Accessories

E30335208 16-pin DIN plug/cable, **E59040708** 16-pin DIN plug, **KCT24S** VCH1-to-PC software and cable, **PG4T** VCH1-to-Kenwood FM mobile cable, **SC46P** Protective case

YAESU

*Yaesu prices beyond 9/30/01 were unknown at press date.

SINGLE BAND HTS

FT-33R 220MHz FM HT An old favorite still enjoying great popularity due to low cost and useful features. • 5W output with standard battery • Transmit/receive range: 220–225MHz • 10 memory channels, 7 store splits • Battery saver • LCD display with S meter • Rugged aluminum alloy case with water resistant seals • Optional CTCSS enc/decode & DTMF pad • 4.8"h x 2.3"w x 1.3"d, 15 oz **$299.99**

Available Accessories

CLIP1 Belt clip, **CSC24S** Case, **CSC28** Case, **FBA17** Battery holder, **FNB12S** 12V 600mA battery, **FNB17** 7.2V 600mA battery, **FTS12** Encoder/decoder, **FIT4** TTP unit, **MH30C2B** Speaker mic, **MH34C2B** Speaker mic, **NC28B** Wall charger, **NC34B** Wall charger, **NC65B** Wall charger for NC18B/38B, **PA6** DC adapter, **YH2** VOX headset with mic

VX-150 2M Ultra Rugged FM HT Designed to perform under the most difficult operating conditions. Packed with leading edge features. A die cast aluminum case houses the electronics and large, high output speaker. The illuminated keypad and Omni-Glow™ display provides easy operation during nighttime operation. 5W output with standard battery • Three power output levels • Transmit range: 144–148 MHz • Receive range: 140–174 MHz • 209 memories • SmartSearch™ auto memory loading • Keypad with 16 multi-function keys • Two user-definable keypad function keys • 8 character alphanumeric display • Priority monitoring • Dual watch • Alphanumeric recall • Memory bank and preferential memory scanning • VFO search • Auto repeater shift • ARTS™ Auto-Range Transponder • Wide and narrow deviation selection • 1750Hz tone calling • Programmable menu for feature customization • Transmit and receive battery savers • Auto power off • MIL-STD 810D/E rating • 4.2"h x 2.3w x 1.1"d, 11.5 oz..... **$159.99**

Available Accessories

ADMS1F Programming software, **CN3** BNC-SMA adapter, **CT27** Cloning cable, **CT44** 2-pin speaker mic adapter, **CT53** Packet cable, **EDC5B** DC adapter/filter, **EDC6** DC adapter; plug/wire only, **FBA25** 6 "AA" cell battery case, **FNBV57** 7.2V 1100mA battery, **FNB64** 7.2V 700mA battery, **LCC150/TT** Leather case, **LCC150S/TT** Leather case/swivel, **MH34B4B** Speaker mic, **MH37A4B** Earpiece and mic, **NC72B** Extra wall charger, **VAC400B** One-hr rapid charger, **VC25** VOX headset

Look For This NEW & Check Out AES' Latest Additions.

GET OUT! HAVE FUN! SAFELY!

All ICOM Mobiles Feature Full Control Mic's; Control Most Radio Functions from the Palm of your Hand - So you can Concentrate on the Road!

IC-207H The ultra-compact remote control* head of this 2 meter/440 MHz dual bander, 50W UHF/35W VHF, with full control mic, fits on just about any kind of dashboard. Also enjoy: CTCSS encode/decode; tone scan; up to 9600 bps packet*; built-in duplexer; 182 memory channels; auto repeater; and more.

IC-2100H *Simple to Use. Land Mobile Rugged.*

2 meters has never been easier or more fun! 50 watts of power; full control mic; PC programmable*; 113 alphanumeric memory channels for easy identification; die cast aluminum chassis; full control mic; CTCSS encode/decode; tone scan; highly intermod resistant; and a cool DUAL color display.

Selectable Green or Amber backlit display, with four different lighting levels, gives easy viewing in any lighting condition.

QST *says this about the '2100H:*

"Those shopping for a wide variety of advanced features in an economically priced 2-meter mobile will find the ICOM IC-2100H worthy of serious consideration."– *QST, 1/99*

IC-2800H Audio excellence, video excitement. 2M/440MHz dual bander with: 50W UHF/35W VHF; full control mic; remote control head; independent tuning & control knobs; cross band repeat; TFT color LCD display; NTSC video input; dual band scope; 9600 bps data port; CTCSS encode/decode; tone scan; 232 alphanumeric memory channels for easy indentification; PC programmable*; die-cast aluminum chassis; and MUCH more.

Gordon West *says this about the '2800H:*

"We are happy to report programming is a snap, and seeing the TFT color display on your dash is no problem during the day, and graphically tantalizing at night!"– *Amateur Radio Trader, 9/99*

Get out and have MORE fun. Visit AES today or call for a free brochure, 24 hours a day: **425-450-6088**

Find out more

www.icomamerica.com

ICOM

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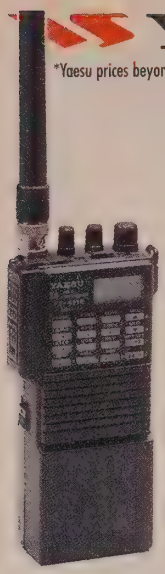
YAESU

*Yaesu prices beyond 9/30/01 were unknown at press date.



FT-411MKII/12 Compact CPU Controlled 2M FM Transceiver Covers 144–148 MHz • 5W output with supplied 12V NiCad battery pack • 49 channel memories plus 10 DTMF memories • Multi-function scanning • LCD display • Full display information • Adjustable power saver, auto-shutoff • Lit display/keypad, musical keys • VOX • 2.2"w x 6"h x 1.2"d..... **$179.99**

Available Accessories

CA7 Two charging sleeves, **CLIP1** Belt clip, **CSC35** Case for unit with FNB17, **CSC37** Case for unit with FNB12S/14, **FBA17** Battery holder, **FNB12S** 12V 600mA battery, **FNB17** 7.2V 600mA battery, **FTS17A** Encoder/decoder, **MH30C2B** Speaker mic, **MH34C2B** Speaker mic, **NC28B** Wall charger, **NC34B** Wall charger, **NC65B** Wall charger for NC18B/38B, **PA6** DC adapter, **YH2** VOX headset with mic

MULTI BAND HANDHELDS

FT-50RD/41B Ultra Compact Dual Band VHF/UHF HT High performance, heavy-duty, rugged, state-of-the-art and small enough to put in your pocket. Simple to operate, and has all the features you want. 5W output with standard battery • Power output 5/2.8/1/0.1W • Transmit: 144–148 MHz and 430–450MHz • RX: 76–200, 300–540, 590–999MHz (cell blocked), includes AM aircraft receive, FM narrow and FM wide • 3 selectable filters • Digital Code Squelch • CTCSS enc/decode • 112 memory channels plus 2 home channels • High speed scanning • 48 character alphanumeric display • ARTS™ • Dual watch • Digital voice recorder • Auto power off • Time-out timer • Windows™ PC programmable • Rear mount battery • MIL-STD 810D/E rating • 3.9"h x 2.25"w x 1.2"d, 11.5 oz..... **$209.99**

Available Accessories

ADMS1E Software, **CA14** Two charging sleeves, **CA15** Charging stand for NC60B, **CLIP10** Spring loaded belt clip, **CN3** BNC-SMA adapter, **CSCV10** Cordura case, **CSC68** Case for unit with FNB41/FBA15, **CSC69** Case for unit with FNB40, **CT27** Cloning cable/CT27A, **CT30** Mic Y adapter, **CT53** Packet cable, **EDC5B** DC adapter/filter, **EDC6** DC adapter; plug/wire only, **FBA15** 4 "AA" battery holder, **FBA21** 6 "AA" battery holder, **FEP10** Earphone, **FNBV47** 7.2V 1100mA battery with belt clip, **FNB40** 6V 650mA battery, **FNB41** 9.6V 600mA 5W battery, **FNB42** 9.6V 1100mA 5W battery, **LCC10C** Leather case with clip for unit with FNB41/V47, **LCC10S** Leather case with sleeve for unit with FNB41/V47, **MH30C2B** Speaker mic, **MH34B4B** Speaker mic, **MH37A4B** Earpiece and mic, **NC50** One-hour dual slot charger, **NC60B** Wall charger, **PA17** Battery cable extender, **RH1** Black rubber protector, **RH1R** Orange rubber protector, **VC25** VOX headset, **YHA54** Replacement 2m/440 BNC duck

Used & Demo Equipment lists

Updated regularly on the web. Check them out and order **On-line**

VX-1R Ultra Compact Dual Band HT Provides superb local communications at power levels of 1W or 500mW. Impressive memory and scanning capabilities in addition to wideband receive which includes VHF and UHF TV audio. AM broadcast, FM broadcast, AM aircraft band, and public safety channels. • Receive ranges: 0.5–1.7MHz (BC Band) 76–108MHz (FM) • 108–137 (AIR) 137–170 (VHF HAM) • 170–222MHz (VHF TV) • 222–450MHz • 470–800 MHz (UHF TV) • 800–999MHz • Cell blocked • Transmit ranges: 144–148MHz • 430– 450MHz • 500 mW with standard 3.6V lithium-ion battery (1W at 6V DC) • 291 memory channels • SmartSearch™ • CTCSS encode/decode, digital coded squelch • Backlit keypad • Auto range trans-ponder system • One-touch emergency system • PC programmable • 6-digit alphanumeric memory labels • 3.2"h x 1.9"w x 1"d, 4 oz..... **$129.99**

Available Accessories

ADMS1E Windows software, **CN3** BNC-SMA adapter, **CSC71** Soft case, **CT44** 2-pin speaker mic adapter, **CT53** Packet cable, **EDC15** DC adapter, **FBA20** Battery holder, **FEP10** Earphone, **FNB52LI** 3.6V 700mA lithium-ion battery, **MH34B4B** Speaker mic, **MH37A4B** Earpiece and microphone, **NC66B** Two-hour charger, **VC25** VOX headset

VX-5R Tri-Band HT A miniature tri-band FM transceiver with extensive frequency coverage of 2M, 6M, 440MHz (including AM and FM broadcast bands), HF shortwave band up to 16MHz and the VHF AM aircraft band. Super thin profile and durable lightweight design. • 5W output (4.5W 430MHz) with standard lithium-ion battery • Transmit ranges: 50–54, 144–148 and 430–450 MHz, wideband receive: .5–15.995, 48–728.990 and 800–998.990MHz (cell blocked), includes AM aircraft, AM broadcast and FM broadcast • 220 memory channels plus home channels • 10 auto-scan weather channels • CTCSS encode/decode, Digital Coded Squelch (DCS) • Backlit keypad • Auto range transponder system • 8 character alphanumeric display • Time-out timer • Dual watch • Dot matrix LCD • Smart search spectrum analyzer • Temperature display read-out • Barometric pressure sensor option • Automatic power-off • Windows PC programmable • 16-digit 9-memory DTMF autodialer • Busy channel lock out • Innovative multi-section antenna • Aluminum diecast case • MIL-STD 810 rating • 3.4"h x 2.3"w x 1.1"d, 8.9 oz..... **$279.99**

VX-5RS Same radio as the above VX-5R with a silver case..... **$299.99**

Available Accessories

ADMS1E Windows software, **CD15** Charger stand for NC72B, **CN3** BNC-SMA adapter, **CSC73** Soft case, **CT27** Cloning cable, **CT44** 2-pin speaker mic adapter, **CT53** Packet cable, **EDC5B** DC adapter/filter, **EDC6** DC adapter/plug/wire only, **FBA23** 2 "AA" cell battery case, **FNB58LI** 7.2V 1100mA lithium-ion battery, **MH34B4B** Speaker mic, **MH37A4B** Earpiece and microphone, **NC72B** Extra wall charger, **SU1** Altitude/barometric pressure sensor, **VC25** VOX headset

ALINCO

AMATEUR RADIO'S VA... ER™

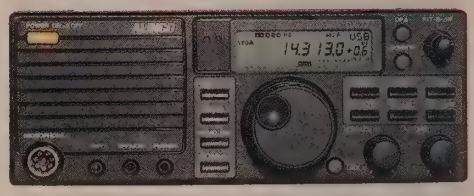
HF RADIOS

DX-70TH Compact HF Covers 160-6M • 150kHz-30MHz and 50-54MHz receive • SSB, CW, AM, FM • 100W (AM 40W) • Detachable face • 100 multi-function memories • Two VFOs • Easy split operation mode • Multi-function control • Narrow filter • Noise blanker • Speech processor • CTCSS for 10M and 6M repeaters • Full, semi or auto break-in CW • All mode squelch • General coverage receiver • Quick offset • Two scan modes • Separate antenna terminals for HF and 6M • RIT • TXIT • Selectable AGC • RF gain control • Dial lock • Automatic antenna tuner interface • MARS/CAP capability • 2.25"h x 7"w x 9"d, 8.3 lbs..... **$749.99**

Available Accessories

DM330MVT 30 amp switching power supply with meter, **DM340MVT** 30 amp power supply with meters, **EBC8** Front control head bracket, **EBC9** Extra mobile bracket, **EDS4** 5' remote mount accessory cable kit, **EDS5** 5' mic extension cable, **EDS6** 15' remote cable, **EDX1** Manual coax antenna tuner, **EDX2** 160-10M auto wire tuner, **EMS14** Desk mic, **HK130** Hardware kit, **MB130** Mount bracket, **PC25** DC cable

FREE ITEMS included with some radios. See Price Guide for details.



DX-77T Covers 160-10M • 500kHz-30MHz general coverage receive • SSB/CW/AM/FM modes • 100W (AM 40W) • 100 multi-function memories • Two VFOs • Computer control via optional ERW-4 cable and software • Direct digital synthesis: eliminates the need for SSB narrow filter • Easy split operation mode • Multi-function control • CW narrow filters • Noise blanker • 6–50WPM electric keyer • Full, semi or auto break-in CW • All mode squelch • Quick offset • Two scan modes • RIT • High/low power setting control • Selectable AGC • RF gain control (RX) • Dial lock • Auto antenna tuner interface • Industry standard power input plug • MARS/CAP capability • Requires 13.8V DC @ 20A • 3.6"h x 9.5"w x 9"d, 8.3 lbs..... **$699.99**

Available Accessories

DM330MVT 30 amp switching power supply with meter, **DM340MVT** 30 amp power supply with meters, **EDS5** 5' mic extension cable, **EDX1** Manual coax antenna tuner, **EDX2** 160-10M auto wire tuner, **EMS14** Desk top microphone, **ERW4** PC cable, **HK130** Hardware kit, **MB130** Mount bracket, **PC25** DC cable

we have a **SECURE** web site at **www.aesham.com**

Manufacturer	ADI	ADI	ADI	ADI	ALINCO	ALINCO	ALINCO	ALINCO	ALINCO	ICOM	ICOM	ICOM	ICOM	KENWOOD
Model	AT-201HP	AT-401HP	PR-52	PR-222	DJ-196T	DJ-496T	DJ-280TH	DJ-S11T	DJ-S41T	IC-2GXAT/HP	IC-T2H & IC-T2H SPORT	IC-T22A	IC-V8	TH-22ATH
Band	2 meters	440MHz	6 meters	220MHz	2 meters	440MHz	220MHz	2 meters	440MHz	2 meters	2 meters	2 meters	2 meters	2 meters
Rx Range (MHz)	130-179	420-470	40-54	216-228	135-174	430-450	220-225	144-148	425-450	144-148(8)	136-174	136-174	136-174	136-174
Aircraft Rx	No	No	No	No	No	No	No	No	No	No	No	No	No	No
Power Output	5W	5W	5W	5W	5W	5W	5W	340mW	340mW	7W	6W	5W(9)	5.5W	5W
Touch-Tone Pad	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes	Yes	Yes
Tone Encode	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes(4)	Yes
Tone Decode	Yes	Yes	Yes	Yes	Yes(4)	Yes(4)	No	No	No	Yes	Yes	Yes	Yes(4)	TSU-8
Memories	40	40	40	40	40	40	10/50(2)/200(3)	21	21	43	40	80/40(10)	100	41
Alphanumeric	No	No	No	No	Yes	Yes	No	No	No	No	No	Yes	Yes	No
Battery Type	Ni-Cad	Ni-Cad	Ni-Cad	Ni-Cad	Ni-Cad	Ni-Cad	Ni-Cad	AA	AA	Ni-Cad	Ni-Cad*	Ni-Cad	Ni-Cad	Ni-Cad
PC Programmable	No	No	Yes	Yes	No	No	No	No	No	No	Yes	No	Yes	No
Antenna Conn	BNC	BNC	TNC(1)	BNC	BNC	BNC	BNC	Fixed(7)	Fixed(7)	BNC	BNC	BNC	BNC	BNC
Height (in.)	3.3	3.3	4.25	4.25	4.9	4.9	5.2	3.9	3.9	4.9	4.5	4.8	5.2	4.6
Width (in.)	2.2	2.2	2.0	2.0	2.2	2.2	2.3	2.2	2.2	2.2	2.3	2.3	2.1	2.2
Depth (in.)	1.2	1.2	0.75	0.75	1.6	1.6	1.3	1.1	1.1	1.4	1.3	1.1	1.4	1.0
Weight (oz.)	6.6	6.6	14.5	14.5	13.2	13.2	11.3	2.72	14	12.9	14.8	10.9	12.3	10.2

Manufacturer	YAESU	YAESU	YAESU
Model	FT-33R	FT-411MKII/12	VX-150
Band	220MHz	2 meters	2 meters
Rx Range (MHz)	220-225	144-148	140-174
Aircraft Rx	No	No	No
Power Output	5W	5W	5W
Touch-Tone Pad	FTT-4	Yes	Yes
Tone Encode	FTS-12	Yes	Yes
Tone Decode	FTS-12	FTS-17A	Yes
Memories	10	49	200
Alphanumeric	No	No	Yes
Battery Type	Ni-Cad	Ni-Cad	Ni-Cad
PC Programmable	No	No	Yes
Antenna Conn	BNC	BNC	SMA
Height (in.)	6.1	6.1	4.3
Width (in.)	2.2	2.2	2.3
Depth (in.)	1.3	1.3	1.0
Weight (oz.)	17.3	19.4	11.5

*Alkaline case included with AA Ni-Cads (case only with SPORT)
(1) TNC ant. jack commonly found on cell & commercial equip.
(2) With optional EJ-14U
(3) With optional EJ-15U
(4) Standard CTCSS plus DCS
(6) Guaranteed 440-450MHz only
(7) Folding ant. attached. 2m ant. - telescopic, 70cm - flex.
(8) Expandable to 136-174
(9) With external 13.8V
(10) 80 without Alphanumerics, 40 with Alphanumerics
(12) 1W on 1.2 gHz
(13) Dual operation between Voice & Data
(14) 1W with wall cube or cigarette adapter
(15) 6-character alphanumeric through software
All radios are cell blocked

FREE ITEMS included with some radios.
See Price Guide for details.

MULTI BAND HANDHELDS

Manufacturer	ALINCO	ALINCO	ALINCO	ALINCO	ICOM	ICOM	ICOM	ICOM	KENWOOD	KENWOOD	KENWOOD	KENWOOD	YAESU	YAESU	YAESU
Model	DJ-596T	DJ-C5T	DJ-V5TH	DJ-V5TDCH	IC-Q7ABC	IC-T7H	IC-T81A	IC-W32A	TH-D7A(G)	TH-F6A	TH-G71A	TH-79AKSS	FT-50RD/41B	VX-1R	VX-5R
Tx Range (MHz)	144-148 420-450	144-148 420-450	144-148 438-450	Same specifications as the DJ-V5TH but has a clear, see-thru case to show off the internal components. Also includes a "AA" battery pack along with the standard Ni-Cad pack.	144-148 440-450	144-148 440-450	50-54, 144-148 440-450 1240-1300	144-148 440-450	144-148 430-450	144-148 222-225 430-450	144-148 430-450	144-148 438-450	144-148 430-450	144-148 430-450	50-54 144-148 430-450
Rx Range (MHz)	136-174 400-512	118-174 420-450	76-999		30-1300	118-174 400-470	50-54, 74-174 400-470 1240-1300	118-174 400-470	118-174 400-480	0.1-1300	118-174 400-470	118-174 438-450(13)	76-200 300-540 590-999	.5-1.7 76-999	0.5-16 48-729 800-999
Single/Multi Rx	Single	Single	Single		Single	Single	Single	Dual	Single(13)	Dual	Single	Dual	Single	Single	Single
Aircraft Rx	No	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Power Output	5W	300mW	5W		350mW	6W	5W(12)	5W	5W	5W	5W	5W	5W	500mW(14)	5W
Memories	100	50	200		200	70	124	200	200	435	200	82	112	291	220
CTCSS	Enc/Dec/DCS	Enc/Dec	Enc/Dec		Enc/Dec	Enc/Dec	Enc/Dec	Enc/Dec	Enc/Dec	Enc/Dec/DCS	Enc/Dec	Enc/Dec	Enc/Dec/DCS	Enc/Dec/DCS	Enc/Dec/DCS
TTP	Yes	No	Yes		No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
Alphanumeric	Yes	No	Yes		No	No	Yes(15)	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes
PC Programmable	No	No	No		No	Yes	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes
Battery Type	Ni-Cad	Li-ion	Ni-Cad		Ni-Cad	Ni-Cad	Ni-MH	Ni-Cad	Ni-Cad	Li-ion	Ni-Cad	Ni-Cad	Ni-Cad	Li-ion	Li-ion
Ant.Connector	BNC	Fixed	SMA		SMA	BNC	SMA	BNC	SMA	SMA	SMA	BNC	SMA	SMA	SMA
Height (in.)	4.9	3.7	3.8		3.8	4.8	4.3	5.5	4.7	3.4	4.4	5.1	3.9	3.2	4.1
Width (in.)	2.2	2.2	2.3		2.3	2.3	2.3	2.3	2.1	2.3	2.1	2.2	2.3	1.9	2.4
Depth (in.)	1.6	0.4	1.3		1.1	1.1	1.2	1.4	1.7	1.2	1.3	1.0	1.2	1	1.3
Weigh (oz.)	13.2	3.2	12		6.4	14.3	9.9	16	13.4	8.8	11.6	11.2	11.5	4	10

ICOM®

HF RADIOS

IC-706 MK II-G Ultra Compact HF/VHF/UHF All Mode Transceiver Carries on the 706 series tradition of base station performance and features in a mobile rig-sized package. Frequency coverage is expanded to include the 70 cm band and power is increased for the 2 meter band. Plus, enhancements and added features and functions. • Covers 160–10M + 6M, 2M and 70cm • 0.03–200MHz broadband receive with wide AM and wide FM broadcast reception • Power output: 100W (40W AM) from 160–6M, 50W (40W AM) on 2M, 20W (8W AM) on 70cm • All mode including RTTY and PSK31 • AF speech compressor • 107 alphanumeric memories • Detachable control panel • 2 optional filter slots • AF-DSP • Tone encode • Tone squelch • Tone scan • Access to RIT/second VFO • Cross band split • Noise blanker • IF shift • Preamp/attenuator • CW keyer • CW pitch control/reverse • Full break-in (QSK) • Speech processor • VOX • Simple band scope function • Scroll menu system • SWR graphic sweep display • One-button duplex and auto repeater functions • Backlit keys • Large built-in speaker • 2 antenna connectors • Quiet cooling fan • Requires 13.8V DC @ 20A • 6.6"w x 2.3"h x 7.9"d, 5.5 lbs..... **$929.99**

706IIG/AH4 The IC-706MKIIG with AH-4 80-6M 120W auto wire antenna tuner..... **$1199.98**

706IIG/AT180 The IC-706MKIIG with an AT-180 HF+6M auto coax antenna tuner..... **$1329.98**

Available Accessories

BET706TUNECONT Better RF IC706 tune control, **AH2B** Whip with mount, **AH2BWHIPONLY** Extra whip only for AH2B, **AH4** 80-6M 120W auto wire antenna tuner, **AT180** HF+6M auto coax antenna tuner, **CR282** Stability crystal, **CT17** Level converter, **FL100** 500Hz 9MHz IF CW filter, **FL101** 250Hz 9MHz IF CW filter, **FL103** 2.8kHz 9MHz IF SSB filter, **FL223** 1.9kHz 9MHz IF SSB filter, **FL232** 350Hz 9MHz IF CW/RTTY filter, **HM118TN** TTP microphone, **MB62** Mounting bracket for main unit, **MB63** Mounting bracket for control panel, **MB65** Mounting base platform, **MB72** Carrying handle, **OPC025D** DC cord, **OPC581** 11.5' separation cable, **OPC587** 16' separation cable, **OPC589** 8-pin mic jack adapter cable, **OPC598** 23' extension cable for AT180, **OPC599** 7+8-pin–13-pin adapter, **OPC742** 13-pin cable, **PS125** 25A switching power supply, **PS85** Switching power supply, **RMK706** Remote mounting kit, **SM20** Stand mic for base station, **SM6** Electret desk mic, **SM8** 2-connector desk mic/scan, **SP7** Small external spker, **UT102** Voice synthesizer

Used & Demo Equipment lists

Updated regularly on the web.
Check them out and order **On-line**

FREE ITEMS included with some radios.
See Price Guide for details.

IC-718 HF All Band Transceiver Advanced features and performance, yet easy to use. Its simplfied operation is perfect for beginners or great as a back-up rig. • Covers 160–10M • Continuous receive coverage 0.03–30MHz • 100W output (40W AM) • Built-in USB, LSB, CW, RTTY (FSK) and AM • 101 memories • Variety of scanning functions • Front mounted loudspeaker • IF shift • Microphone compressor • RF gain control • Noise blanker • RF attenuator and preamp • Auto notch • Ample CW features include an electronic keyer • VOX • Flexible filter selection • Digital S/RF meter • High frequency stability • Optional voice synthesizer and DSP capability • Hand mic included • Requires 13.8VDC @ 20A • 9.4"w x 3.75"h x 9.4"d, 8.5 lb..... **$599.99**

Available Accessories

AH2B Whip with mount, **AH2BWHIPONLY** Extra whip only for AH2B, **AH4** 80-6M 120W auto wire antenna tuner, **AT180** HF+6M auto coax antenna tuner, **CR338** High stability crystal, **CT17** Level converter, **FL222** 1.9kHz 455kHz IF SSB filter, **FL257** 3.3kHz 455kHz IF SSB filter, **FL52A** 500Hz 455 kHz IF CW filter, **FL53A** 250Hz 455kHz IF CW filter, **FL96** 2.8 kHz 455kHz IF SSB filter, **MB23** Carrying handle, **MB5** Mobile mount, **OPC025D** DC cable, **OPC598** 23' extension cable for AT180, **PS125** 25A switching power supply, **PS85** Switching power supply, **SM20** Stand mic for base station, **SM6** Electret desk mic, **SM8** 2-connector desk mic/scan, **SP20** Speaker with audio filter, **SP21** Speaker, **SP7** Small external speaker, **UT102** Voice synthesizer, **UT106** DSP

IC-756PRO HF/50MHz All Mode Transceiver Newly designed, 32 bit floating point DSP digital IF filter with 41 selectable bandwidths, microphone equalizer, manual notch function, TFT 5" color LCD, digital twin passband tuning (PBT), all mode, including PSK31, and much more. • Covers HF and 50MHz amateur bands • Continuous receive 0.03~60MHz • 100W (AM 75W) • 101 memory channels • AGC loop management • Edge cutting IF filter • RF speech compressor • Twin peak audio filter • DPSN • RTTY demodulator • Digital noise reduction • CW wave form • Spectrum scope • Digital voice memories • Highly stable transmitter • Digital twin PBT • High performance memory keyer • Analog and digital meters • Set mode condition list • Complete CW features • Superior receive IMD • Dual watch • Memory pad • Triple band stacking register • Quick split function • Built-in antenna tuner • RIT and ΔTX Control for main and sub band • Dual antenna system • VOX • 2-level preamp and 3-level attenuator • Auto TS function • CI-V interface capability with optional CT-17 • Noise blanker • Scanning functions • CTCSS tone encoder built in • 13.3"w 4.3"h x 11.2"d, 21 lbs..... **$2399.99**

Available Accessories

AH2B Whip with mount, **AH2BWHIPONLY** Extra whip only for AH2B, **AH4** 80-6M 120W auto wire antenna tuner, **CT17** Level converter, **HM36** Scanning hand mic, **OPC025D** DC cable, **PS125** 25A switching power supply, **SM20** Stand microphone for base station, **SM6** Electret desk mic, **SM8** 2-connector desk microphone/scan, **SP20** Speaker with audio filter, **SP21** Speaker, **UT102** Voice synthesizer

IC-746 HF/VHF All Mode Transceiver With solar cycle 23 geared up, all hams will be able to take advantage of better HF propagation conditions, night and day! • Covers 160–10M + 6M + 2M • Continuous receive coverage 0.03–60MHz and 108–174 MHz • 100W output (40W AM) on all bands – 100% duty cycle • 100 memories • 10 "memo pad" memories • All modes including RTTY and PSK-31 • Built-in auto antenna tuner for HF/6M • 2 antenna connectors for HF/6M, one for 2M • IF-DSP noise reduction, auto notch and selectable audio peak filters • Noise blanker • Dot matrix LCD display • Spectrum scope • Twin passband tuning • Triple band stacking register • 2-step preamp • 3 optional filter slots • RF speech compressor • Tone squelch • Tone scan • VOX • SmarTune™ variable speed tuning • Auto repeater duplex setting • Quick split • CW pitch control • QSK • Memory keyer with 4 built-in memories • QSO serial number generator • Transmit audio monitor • Requires 13.8V DC @ 20A • Hand mic with up/down frequency control • 11.3"w x 4.7"h x 12.5"d, 19.6 lbs **$1299.99**

Available Accessories

AH2B Whip with mount, **AH2BWHIPONLY** Extra whip only for AH2B, **AH4** 80-6M 120W auto wire antenna tuner, **CR282** Stability crystal, **CT17** Level converter, **FL100** 500Hz 9MHz IF CW filter, **FL101** 250Hz 9MHz IF CW filter, **FL103** 2.8kHz 9MHz IF SSB filter, **FL222** 1.9kHz 455MHz IF SSB filter, **FL223** 1.9kHz 9MHz IF SSB filter, **FL232** 350Hz 9MHz IF CW/RTTY filter, **FL257** 3.3kHz 455kHz IF SSB filter, **FL52A** 500Hz 455kHz IF CW filter, **FL53A** 250Hz 455kHz IF CW filter, **FL96** 2.8kHz 455 kHz IF SSB filter, **OPC025D** DC cable, **PS125** 25A switching power supply, **PS85** Switching power supply, **RS746** Windows software, **SM20** Stand mic for base station, **SM6** Electret desk mic, **SM8** 2-connector desk mic/scan, **SP21** Spker, **UT102** Voice synthesizer

IC-775DSP HF All Band Transceiver • Covers 160–10M • 100kHz–29.995MHz continuous receive • All mode, including PSK-31 • Data mode • Power MOS FET PA section • 200W output (50W AM); continuous duty cycle • Preamp and attenuator • Channelized quick split function • RF speech compressor • Triple band stacking register • Transmit and receive DSP • Digital noise reduction • Digital PSN • Noise blanker with adjustable level and width • Audio peak filter • Dual watch • Dual tuning knobs • Twin pass band tuning • Accomodates up to 11 filters, 6 filters installed, accepts up to 5 more • Built-in memory keyer • Electronic keyer function • CW pitch control • CW reverse • QSK • Double key jack • Large, easy-to-read amber display • PC programmable • Built-in heavy-duty power supply • Auto antenna tuner and selector • 16.7"w x 5.9"h x 15.4"d, 36.8 lb **$2999.99**

Available Accessories

CR282 Stability crystal, **CT17** Level converter, **FL101** 250Hz 9MHz IF CW filter, **FL102** 6kHz 9MHz IF AM filter, **FL222** 1.9kHz 455MHz IF SSB filter, **FL223** 1.9kHz 9MHz IF SSB filter, **FL257** 3.3kHz 455kHz IF SSB filter, **FL53A** 250Hz 455kHz IF CW filter, **HM36** Scanning hand mic, **MB19** Rack mounting handles, **SM20** Stand mic for base station, **SM6** Electret desk mic, **SM8** 2-connector desk mic/scan, **SP20** Speaker with audio filter, **SP21** Speaker

ICOM

DUAL BAND BASE STATION

IC-910H VHF/UHF All Mode Transceiver • The successor to the IC-821H, but with the optional 1200MHz installed, it becomes an all mode (SSB, CW and FM) triband transceiver. • Coverage: 144-148, 430-450 and 1240-1300MHz (option) • Memory channels: 99 regular, 1 call, 6 scan edges for each band, 10 satellite • 5-100W (2m), 5-75W (440MHz), optional 1-10W (1200MHz) • Large, 3.5" multi-function LCD, 10-key direct enty keypad for operating frequency or memory channels • Satellite mode operation support • 9600bps packet • Simultaneously works 2 bands in receive and full duplex • CW full support • Versatile scanning functions (programmed, memory, mode select memory and tone scan) • Memory pad • 50 tone CTCSS encoder • On-touch repeater function • Auto repeater function • Speech compressor • IF shift • VOX • RIT • PC compatible through optional level converter • Requires 13.8V DC @ 23A • 9.5"w x 3.6"h x 9.4"d, 10 lbs **$1299.99**

Available Accessories

AG1200 1.2gHz mast mount preamp, **AG25** 2M mast mount preamp, **AG35** 430 mast mount preamp, **CR293** High stability crystal unit, **CT17** Level converter, **FL132** 500Hz main receiver CW filter, **FL133** 500Hz sub-band receiver CW filter, **MB23** Carrying handle, **MB5** Mobile mount, **PS125** 25A switching power supply, **SM20** Stand mic for base stations, **SP7** Small external speaker, **UT102** Voice synthesizer, **UT106** DSP unit, **UX910** 10W 1.2gHz module

KENWOOD

HF RADIOS

TS-50S HF Transceiver • Covers 160–10M • General coverage receive 500kHz–30MHz • 100W output SSB/CW and FM (AM 25W) • 100 memory channels • Multiple scan functions • Powerful menu system • Dual VFOs • Comprehensive interference reduction • Full & semi break-in • CW reverse mode • All-mode squelch • Switchable AGC • IF shift • 20 dB attenuator • Noise blanker • Multi-function hand mic • 7"w x 2.3"h x 9.1"d, 6.4 lbs **$699.99**

Available Accessories

AT50 HF external auto tuner, **KPS15** 23A switching power supply, **MB13** Quik release mobile mount, **MC47** 8-pin hand mic, **MC60A** 8-pin amp desk mic, **MC80** 8-pin electret desk mic, **PG2Y** DC cable, **PG2Z** 6.5' heavy-duty DC cable, **PG4M** 18' extension cable for the AT50, **PS53** Heavy-duty power supply, **SO2** TCXO unit, **SP23** Speaker, **TC50** Travel case, **YK107C** 500Hz CW filter

TS-570D(G) HF Transceiver • Covers 160–10M • General coverage receive 500kHz–30MHz • Variable output: 5-100W SSB/CW/FM and FSK (AM 25W) • 100 memories with extensive functions • Large amber-colored backlit LCD display • 10-key direct entry • 46 EZ-to-use menu functions • Multiple scanning functions • 16-bit AF-stage DSP VOX • XIT/RIT • IF shift • Noise blanker • All mode squelch • TX audio shaping • Built-in electronic keyer • Full and semi break-in CW • CW message memory • CW auto tune • 38 tone CTCSS encoder and 1750Hz tone • TX audio shaping • Packet and FSK • PC control option • Two antenna ports and packet port • Built-in automatic antenna tuner • Requires 13.8V DC @ 20.5A • 10.6"w x 3.7"h x 10.6"d, 15 lbs **$1099.99**

TS-570S(G) HF+6M Transceiver Features are the same as the TS-570D(G) (above) but covers 160–10M plus 6M. General coverage receiver range includes 50–54MHz..... **$1279.99**

Available Accessories

DRU3A Digital recording unit, **KPS15** 23A switching power supply, **MB430** Mobile mounting bracket, **MC43S** 8-pin hand mic, **MC60A** 8-pin amp desk mic, **MC80** 8-pin electret desk mic, **MC90** 2-head DSP desk mic, **PG2Y** 13' DC cable, **PG2Z** 6.5' heavy-duty DC cable, **PS53** Heavy-duty power supply, **SO2** TCXO unit, **SP23** Speaker, **VS3** Voice synthesizer, **YK88CN1** 270Hz CW filter, **YK88C1** 500Hz CW filter, **YK88SN1** 1.8kHz SSB filter

TS-870S All Mode HF Transceiver • Covers 160–10M • General coverage receive 100kHz–30MHz • 100W output SSB/CW/FM/FSK (25W AM) • 100 memory channels • Multiple scanning modes • Menu function • Variable AGC • IF digital filter (DSP) • DSP detection • Dual mode noise reduction • Automatic notch filter • Voice equalizer • Speech processor • Transmit equalizer VOX • QSK digital IF filter • DSP noise reduction • IF stage auto-notch beat cancel function • Variable AGC circuit • Built-in electronic keyer • CW pitch control • CW reverse • Radio control software program • Auto antenna tuner on transmit and receive • Built-in antenna tuner dual antenna terminals • External receiver antenna output jack • EZ menu system CTCSS encoder • High quality digital recording option • RS-232C port • Requires 13.8V DC @ 20.5A • 13"w x 4.75"h x 13"d, 25 lbs. **$2149.99**

Available Accessories

DRU3A Digital recording unit, **KPS15** 23A switching power supply, **MC60A** 8-pin amp desk mic, **MC80** 8-pin electret desk mic, **MC90** 2-head DSP desk mic, **PG2Y** 13' DC cable, **PG2Z** 6.5' heavy-duty DC cable, **PS52** Heavy-duty power supply, **SO2** TCXO, **SP31** External spker, **VS2** Voice synthesizer

FREE ITEMS included with some radios. See Price Guide for details.

TS-2000 HF/VHF/UHF All Mode Transceiver Offers 3 operation platforms: traditional transceiver with full function front panel, high-tech looking "silver box" version (TS-B2000), or computer controlled with software • 100W output on HF, 6M and 2M; 50W on 70cm; 10W on 1.2gHz (optional UT-20) • High performance true IF/stage DSP on main band, AF stage DSP on sub-band • Wide band receive • Digital filtering • Dual receive • Satellite ready, with transverter frequency display • Cross band repeat • Built-in auto tuner HF through 6M • Built-in TNC • Built-in RS-232 for computer control • Built-in TCXO (.5PPM) • CTCSS/DCS enc/dec • Electronic memory keyer • Backlit front key panel • 5+1 antenna ports – 2 for HF and 6M, 1 each for 2M, 70cm, 1.2GHz and HF receive **$1949.99**

TS-B2000 HF/VHF/UHF All Mode Transceiver Same functions as the TS-2000 with high-tech "silver box" look. Includes compact control head and ARCP-2000 PC control software **$1549.99**

TS-2000X HF/VHF/UHF All Mode PC Controlled Transceiver Same as TS-2000 w/1.2GHz **$2649.99**

Available Accessories

ARCP2000 PC/radio control software, **DRU3A** Digital recording unit, **KPS15** 23A switching power supply, **MB430** Mobile mounting bracket, **MC43S** 8-pin hand mic, **MC52DM** Lit TTP mic, **MC60A** 8-pin amp desk mic, **MC80** 8-pin electret desk mic, **MC90** 2-head DSP desk mic, **PG2Y** 13' DC cable, **PG2Z** DC cable, **PS53** Heavy-duty power supply, **RC2000** Remote face plate mobile kit, **SP23** Speaker, **VS3** Voice synthesizer

MFJ ENTERPRISES, INC.

LOW POWER SINGLE BAND SSB TRANSCEIVERS

Easy to operate Travel Radio™! No microprocessor – just turn on and tune in. • 20W PEP (Less on VHF models) – plus Constant Current™ syllabic speech processing for an added 4–6dB advantage to cut through noise, fading, and QRM. Includes a hand-held dynamic microphone that complements the speech processing. • Low drain – 3A from 12V supply or battery. • Low noise preamp and active double balanced mixer front end • Excellent selectivity – Sharp 2.3 kHz SSB crystal ladder filter reduces passband noise, fights QRM, and improves intelligibility • TVI protection (built-in 7 element lowpass filter) • Real S-meter: Position your beam with accuracy and give meaningful reports. Also, monitor speech processing level. • Agile tuning – reduction drive analog VFO lets you scan the band for signals quickly, then zero in smoothly • Amplifier jack • Compact 2.5h" x 6.5"w x 6"d • 3 models below

9420X 20M SSB (14.150–14.350MHz).... **$229.99**

9440X 40M SSB (7.150–7.3MHz)..... **$229.99**

9475X 75M SSB (3.75–4.00MHz)..... **$229.99**

Available Accessories:

415B CW adapter (9420X and 9440X only), **971** 200W HF tuner, **4110** Portable AC power supply, **4114** Rechargable power pack

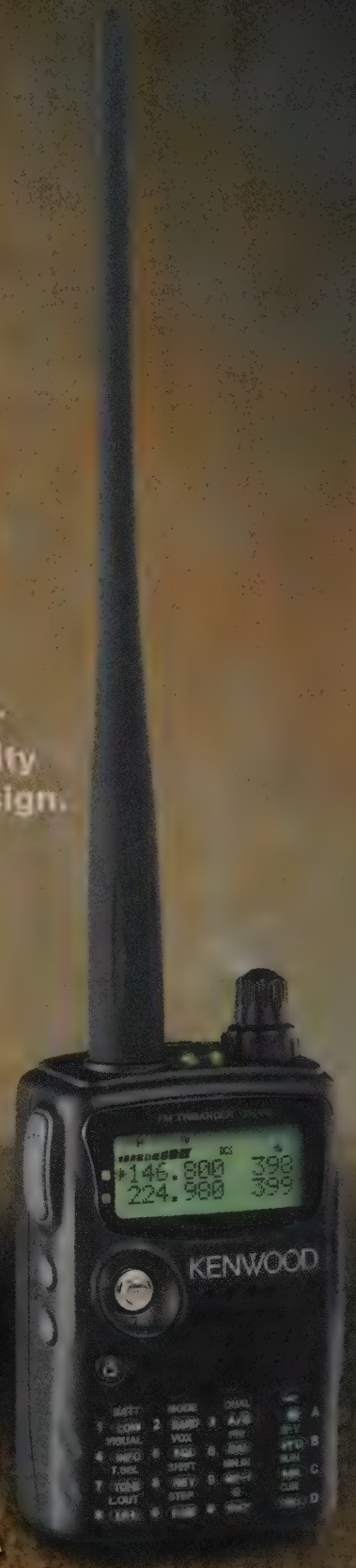
144 220 +440

Everything adds up: Kenwood's new FM Tribander (144/220/440MHz) offers dual-channel RX capability and prime performance in a superbly compact design.

- Receives 2 frequencies simultaneously even on the same band
- 0.1~1300MHz high-frequency range RX (B band)[1]
- FM/FM-W/FM-N/AM plus SSB/CW receive
- Bar antenna for receiving AM broadcasts
- Special weather channel RX mode
- 435 memory channels, multiple scan functions
- 7.4V 1550mAh lithium-ion battery (std.) for high output[2] and extended operation
- 16-key pad plus multi-scroll key for easy operation
- Built-in charging circuitry for battery recharge while the unit operates from a DC supply
- Tough construction: meets MIL-STD 810 C/D/E standards for resistance to vibration, shock, humidity and light rain
- Large frequency display for single-band use
- Automatic simplex checker
- Wireless remote control function
- Battery indicator • Internal VOX • MCP software

[1] Note that certain frequencies are unavailable. [2] 5W output

"Specifications subject to change without notice."



NEW

TH-F6A

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HF All Mode or HF + 6m All Mode

TS-870S w/DSP
HF All Mode

TS-2000
HF/VHF/UHF Multi-Mode

TS-B2000
HF/VHF/UHF Multi-Mode

RC-2000
Compact Mobile Controller

ARCP-2000
PC Radio Control Program

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SG-2020 with ADSP - SGC Cat. #05-02 - $795.99

SG-2020 without ADSP - SGC Cat. # 05-01 - $675.99

ower Output: 150 watts PEP
ansmitter frequency range: -1.8 to 30 MHz
eceiver frequency range: 500kHz to 30 MHz
odes; A3A, ASH, A3J,CW, AM
hannels: 100 channels field programmable, 644 channels ory programmed ITU and data.
an Channels: Up to 100 programmable in 10 groups
ower Requirement: 13,6 VDC; 0.8A RX - 16A TX
ze: 15"L x 10"w x 4 3/4"H • Weight: 12 lbs

SG-2000 - HF Single Sideband Radio Telephone

Make contact anywhere with the power-packed SG-2000. Engineered fo simple and efficient operation, the SG-2000 features an alarm generator, upper/lower sideband, true amplitude modulated (AM) receiver and channel scan as standard features. Talk anywhere in the world on the HF Ham bands, receive and send time sensitive documents, decode UPI transmissions, get latest weather reports or listen to shortwave broadcast from around the world. Scan all ITU channels and up to 100 memory channels in adjustable scan speeds and rates. An extra large wide angle display with adjustable backlighting provides easy viewing day or night. The SG-2000 can be fully computer controlled by any standard RS-232 protocol connector for RTTY, ARQ (SITOR), FEC, Packet and telegraph modes. Fast RX/TX switching time ensures easy and secure data transm sions. The compact front panel of the SG-2000 can also act as the remot head terminal, and up to 8 full function remote heads can be utilized.

SG-2000 - SGC Cat. #04-01 - $1599.99

SG-2000 Powertalk with ADSP - SGC Cat. #04-10 - $1849.99

ne SG-500 SmartPowerCube

emendous power - nearly as much as a 1000W amplifier, but requiring ss than one cubic foot of space, the SG-500 is an intelligent, microproces-r-controlled high power linear amplifier. Its electronic brain constantly onitors your HF-SSB's activities, power needs, and antenna condition, d instantaneously selects the right broadband filter. Designed to perform iably and essentially unattended, in the most demanding conditions.

overs: 1.8 to 24 MHz (Overseas model - up to 30MHz) • Power Output: SSB: 0W PEP; CW: 500W for 10 minutes, no fan; 500W unlimited with fan; AM: 0W carrier maximum • Automatic bandswitching • Protection: Input overdrive, er current, over temperature • Size: 12 1/4"L x 11 1/4"W x 6"H

SG-500 - SGC Cat. #52-96 - $1169.99

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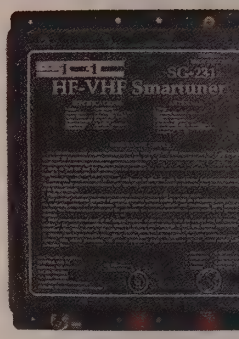
Smart technology. Smart design. Smartuners.

SG-237 Smartuner
100W Antenna Coupler

The SG-237 Smartuner series is perfect for marine, aviation, commercial and amateur appications and any application type. The SG-237 is designed with high density surface mount components on a 4 layer PCB, providing high efficiency, reliability and performance. Rugged waterproof construction allows tough operation in any environment. • Cat. #54-18 standard version $359.99 • Cat. #54-20 Porta. Designed for quick mobile or base set up. Special Order • Cat. #54-19 PCB only - For retrofit or special projects $249.99

1.8-60 MHz • Power Input Range 3-100W PEP • Weight 2 lbs. • 9"L x 7"W x 1.85"H

SG-231 Smartuner
100W Antenna Coupler



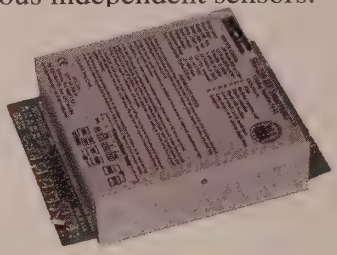
Complete frequency agility with no operator intervention • Compact design, fits the most restrictive installations • Waterproof case allows mounting at antenna feed point for highest efficiency. • SWR always 1:1.5 or better. Tuning solutions are stored in a non-volatile memory for fast (10ms) automatic recall. Oper with any HP or VHP transceiver, 3 100W, and requires only 12VDC a RP connections.

1-60 MHz • Power Input Range 3 to 100W PEP • Weight 3 lbs. • 11.5"L x 9.5"W x 1.7"H • SGC Cat. #54-17 • $529.99

New This Year - The SG-239
Tiny High-Performance Coupler

Performance features of the SG-239 are far ahead of its low price tag. The unit will work with silent receiver tuning or within the range of 1.5 to 200 watts with a high power transceiver. It has fast, accurate tuning via numerous independent sensors.

1.8-30MHz • 1.5-200W PEP • Weight 2 lbs. • 7.5"L x 6"W x 1.85"H • SGC Cat. #54-22 • $249.99



SG-230 Smartuner
200W Antenna Coupler

The SG-230 precisely tunes any length antenna - 8 to 80 ft. in the HF band. The Smartuner automatically evaluates and switches 64 input & 32 output capacitance combinations, plus 256 inductance combos in a "pi" network (over a half million possible combinations). The amazing result - it automatically selects from over a half-million different ways to ensure a perfect match for your transceiver. It also remembers the chosen frequency and tuning values in less than 10 ms, each time you transmit.

1.8-30 MHz • Power Input Range 3-200W PEP • Weight 8 lbs. • 16"L x 12"W x 3"H • SGC Cat. #54-14 • $489.99

SG-235 Smartuner
500W Antenna Coupler

The most powerful coupler on the market - The SG-235. The SG-235 automatically tunes any length antenna from just 23 ft. long witho preliminary tuning or adjustments The chosen frequency and tuning values are remembered allowing reselection of those valu in less than 10 milliseconds, each time you select that frequency. Flexibility is a key feature with its attractive options, including 24V DC.

1.8 to 30 MHz range • Power Input Range 3-500W PEP • Tunes from 23 ft, antenna at full power • Waterproof • Weight 8 lbs. • 16"L x 12"W x 3"H • SGC Cat. #54-15 • $1169.99

Not sure which coupler is right for you? Go to *www.sgcworld.com/compare* for a full Smartuner comparison chart.

Q.M.S. - Quick Mount System

Complete mobile kit - works with any vehicle

Add a QMS to your HF SSB mobile system - an SGC Smartuner along with an efficient whip antenna. The QMS can be installed on any vehicle without drilling any holes or damaging the car body. Installation can be permanent or temporary and just takes 15 minutes. Mount the QMS on the vehicle side, trunk, or roof.

All kits include strapping antennas, four sucti cups and mounting hardware.

- **SGC #55-47:** QMS-2: Includes SG-230 cou pler, SG-303 9 ft. antenna - **$895.99**
- **SGC #55-48:** QMS-3: Includes SG-235 cou pler, SG-303 9 ft. antenna - **$2169.99**
- **SGC #55-49:** QMS-7: Includes SG-231 cou pler, SG-307 7 ft. antenna - **$1249.99**
- **SGC #55-50:** QMS-37: Includes SG-237 coupler, (Optional antenna available) - **$549.9**

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MFJ ENTERPRISES, INC.

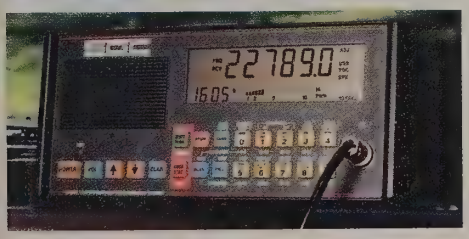
ORP SINGLE BAND CW TRANSCEIVERS

Easy operation! Sets up in seconds. • 5W CW • Great sensitivity – hot superhet receiver with super-quiet FET post amp stage in the IF filter • Excellent selectivity – tight CW bandwidth crystal ladder filter fights unwanted QRM and noise • Smooth and stable VFO (wide-spaced reduction drive VFO capacitor) • True RIT • Recovery AGC • Built-in 3" speaker • Low power drain – 50mA on receive and 1.2A peak on transmit • Semi-QSK – set adjustable hold transmit/receive switching to suit your normal sending speed or set for full QSK during contests • Compact • 5 models below

9015 5W, 15M (21.000–21.200MHz) **$169.99**
9020 5W, 20M (14.000–14.075MHz) **$169.99**
9030 5W, 30M (10.100–10.150MHz) **$169.99**
9040 5W, 40M (7.000–7.150MHz) **$169.99**

Available Accessories:
27 Handle for CW station, **412** Plug-in Curtis keyer, **726** Plug-in audio filter, **971** 200W portable antenna tuner/meter, **1770** Portable 15M dipole, **1771** Portable 17M dipole, **1772** Portable 20M dipole, **1773** Portable 30M dipole, **1774** Portable 40M dipole, **4110** portable AC power supply, **4114** Rechargable power pack

SGC



HF SSB TRANSCEIVERS

SG-2000 (04-01) **HF SSB Global Radio Telephone with full frequency coverage for Voice and Data** Talk anywhere in the world on the HF Ham bands, receive and send time sensitive documents, decode UPI transmissions, get latest weather reports or listen to shortwave broadcasts. Also, great for marine use. Optionally, it can be fully computer controlled via the standard RS-232 protocol connector. The front panel can also be used as a remote head terminal, and up to 8 full function remote heads can be utilized. • 1.8–30MHz transmit • 500kHz–30MHz general coverage receive • 150W • Modes: A3A, A3H, A3J and CW in LSB/USB, true AM in receive mode and data • 100 field-programmable and 644 factory programmed ITU & data channels • Up to 100 programmable scan channels in 10 groups • 13.6 VDC @ 16A • 4.75"h x 10"w x 15"d, 12 lbs..... **$1599.99**

Available Accessories:
0411 Standard remote head/bracket/20' cable, **0412** Remote kit/swivel bracket/cable, **0413** Remote kit/5-way mount/ cable, **0415** Remote mobile head (memory channels only), **0422** Powertalk remote head, **5182** Fan kit for continuous transmit, **5232** Carbon telephone handset, **5234** RS232 interface, **5251** CA-1 HV feed wire, **5253** CA-230 antenna coupler cable, **5254** CA-2000 remote head cable, **5261** PSC/12-1 12' power supply cable/1 plug, **5262** PSC/12-2 12' power supply cable/2 plugs, **5304** PS-30 30/40A peak unregulated power supply, **5305** PS-50 50/70A peak unregulated power supply

PowerTalk™ SG-2000 (04-10) **HF SSB Transceiver** With the PowerTalk™ SG-2000, you'll intercept more weak HF signals, increase signal clarity and eliminate unwanted noise. You'll hear SSB signals clearer and easier than ever before. Combines SGC's exclusive ADSP™ (Automatic Digital Signal Processing) and SNS™ (Signal Noise Subtraction). A DSP command center with a high performance spinner knob and bright LED indicators. Includes all of the outstanding features of the SG-2000: 644 Ham and ITU discrete frequencies • 150W • Programmable memory • Large LCD display..... **$1849.99**

Available Accessories:
0412 Remote kit/swivel bracket/cable, **0413** Remote kit/5-way mount/ cable, **0422** Powertalk remote head, **5232** Carbon telephone handset, **5234** RS232 interface, **5251** CA-1 HV feed wire, **5253** CA-230 antenna coupler cable, **5254** CA-2000 remote head cable, **5261** PSC/12-1 12' power supply cable/1 plug, **5262** PSC/12-2 12' power supply cable/2 plugs, **5304** PS-30 30/40A peak unregulated power supply, **5305** PS-50 50/70A peak unregulated power supply

SG-2020 (05-01) **Compact HF SSB/CW Transceiver** Small, but fully microprocessor-controlled and loaded with "Big Rig" features. Take it and use it anywhere – fixed, mobile, portable, aviation or boating. Operating from 12V DC, it has the lowest current consumption on the market. • 1.8–29.7MHz amateur bands • 400kHz–29.7MHz general coverage receive • SSB/CW modes • 0–20W PEP output, adjusts down to 1W for QRP • 40 memories • Backlit LCD display • Built-in IAMBIC "B" mode electronic keyer • Noise blanker • RF speech processor and clipping • SWR metering and voltage indicator • SPLIT, RIT, XIT • AF bandpass tuning • Handheld dynamic microphone included • Requires 13.8V DC @ 3A • 2.75"h x 6"w x 7.5"d, 4.5 lbs **$675.99**

SG-2020 (05-02) Same radio as above with 20 memories and the addition of ADSP™. The added PowerClear™ DSP software provides superior tone rejection (better than 57dB) and dynamic noise rejection (better than 18dB) **$795.99**

Available Accessories:
5422 SG-239 200W SmartTuner

RANGER Communications, Inc.

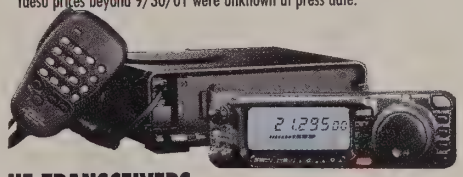
NEW

6M TRANSCEIVER

RCI-5054DX **All-mode 6 Meter Transceiver** Covers 50-54MHz and rated at 10W CW/AM/FM, and 25W PEP SSB output. • 10 programmable memory frequencies • Programmable repeater offset (splits of up to 2MHz, with TX high or low) • ± 2.5kHz receiver clarifier • Noise blanker/ANL circuitry • Programmable receiver scanning for quick search of active frequencies • Includes up/down tuning hand microphone • Optional CTCSS tone • 12V DC • 2.4"h x 7.75"w x 10.75"d..... **$299.99**

YAESU

*Yaesu prices beyond 9/30/01 were unknown at press date.



HF TRANSCEIVERS

FT-100D **Ultra-Compact HF/VHF/UHF All Mode Transceiver** Widely acclaimed for outstanding performance and flexibility. Wide frequency coverage and versatile – a great compact mobile, vacation or expedition radio. Covers 160–6M, 144-148 MHz, 430–450MHz • General coverage receive: 100kHz–30MHz, 30–970MHz (cell blocked) • 100W output on HF/6M; 50W on 2M; 20W on 430MHz • DSP system enhances signal-to-noise ratio via bandpass, noise reduction and automatic notch filters • Dual VFOs • Electronic keyer built-in • 200 memories and Quick Memory Bank • SmartSearch™ auto memory channel loading • Improved high-quality speaker • 500Hz, 8-pole crystal filter (CW) • High stability reference oscillator • CTCSS decode • Bright LCD with multi-function display • VOX • Requires 13.8V DC @ 22A • 6.3"w x 2.1"h x 8"d..... **$879.99**

FT-100D/ATAS FT-100D & ATAS-100 HF/6M/2M/430 mobile antenna combo..... **$1199.98**

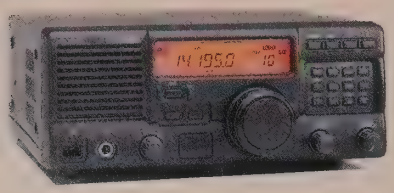
Available Accessories:
ATAS100 HF/6M/2M/430MHz motorized antenna, **ATBK100** ATAS100 base kit/use with mount, **CT39** Packet cable, **CT58** Band data cable, **CT62** CAT interface cable, **CT69** 6-pin mod/8-pin mic jack, **FC20** Automatic antenna tuner, **FP1023** 23A switching power supply with fan, **FP1030A** 25A power supply with meters, **LL5** Phone patch unit, **MLS100** Mobile speaker, **MMB62** Remote control panel bracket, **MMB67** Quick release bracket, **SP6** External speaker, **SP7** External speaker, **T9021925** Extra DC cord, **XF117A** 6kHz AM filter, **XF117CN** 300Hz CW filter, **YH77STA** Stereo headphone, **YSK100** Separation kit

WE WANT YOUR TRADE-IN!

We're always looking for Clean, Late model SSB or FM gear. Look over the gear in this catalog. Then call Toll Free and tell the salesperson what item you want and what gear you have to trade.

YAESU

*Yaesu prices beyond 9/30/01 were unknown at press date.



FT-600 Compact HF Transceiver Straightforward, sensible layout of a commercial radio with the most-often used features on the front panel. It excels as an easy-to-use base or mobile. • Direct Digital Synthesis (DDS) • Covers 160–10M with 50 kHz–30MHz general coverage receiver • 100W output (25W AM) • 100 memory channels (in 4 banks of 25) • Direct keypad frequency entry • Alpha-numeric display • Noise blanker • Omni-Glow™ display • High output front mounted speaker • Dual watch MIL-STD 810 rating • Requires 13.8V DC @ 20A • 9.6"w x 4.1"h x 11.2"d, 9.9 lbs..... **Special Order $899.99**

Available Accessories:
FC800 Extra long wire auto tuner, **FIF232C** RS-232 interface, **FP1023** 23A switching power supply with fan, **FP1030A** 25A power supply with meters, **MD100A8X** Desk mic with tone control, **MMB20** Mobile mount, **SP8** External speaker with filters, **TCXO4** TCXO unit, **YF112A** 6kHz AM filter, **YF112C** 500Hz CW filter, **YH77STA** Stereo headphones

FT-817 HF/VHF/UHF Backpack Transceiver A self-contained, battery-powered, low power, amateur transceiver for camping, mountain topping, portability. • Transmit: 160–10M, 50MHz, 144MHz, 430-450MHz, plus Alaska Emergency Channel (5167.5 kHz) • Receive: 100kHz-56MHz, 76-154MHz, 420-470MHz • AM aircraft receive • 200 memories, plus home channels and band-limit (PMS) • Alphanumeric labeling • SmartSearch™ auto memory loading system • Power output: 5W SSB/CW/FM with 13.8V external DC, 1.5W AM, 2.5W SSB/CW/FM with 9.6V Ni-Cad pack or 8 "AA" batteries (comes with internal alkaline battery case), 0.7W AM, up to 5W SSB/CW/FM power programmable via menu on Ni-Cad or AA cells • Operating modes: USB, LSB, CW, AM, FM, W-FM, Digital (AFSK), Packet (1200/9600 FM) • Digital modes: RTTY, PSK31-U, PSK31-L, and user-defined USB/LSB (SSTV, Pactor, etc.) • Two-color LCD multi-function display (blue/amber) • Bar graph meters power output, ALC, SWR, modulation • RF gain/squelch control • Built-in noise blanker • Attenuator • Dual VFOs, split capability, IF shift, and RIT • Built-in CW electronic keyer and semi-break-in • VOX • Automatic repeater shift • Built-in CTCSS and DCS • Auto-Range Transponder System • Spectrum scope • Front/rear panel antenna connectors • Rear panel data, accessory and key jacks • Auto power-off and TX time-out timer • CAT system computer control capability (4800/9600/38400bps) • 5.31"w x 1.5"h x 6.5"d, 2.6 lbs..... **$669.99**

Available Accessories:
W4ROTT1 One-touch tune, **CSC83** Soft case, **CT39** Packet cable, **CT62** Cat interface cable, **EDC6** DC cord, **FNB72** 9.6V 1000ma NiCad, **MH36E8J** TTP mic, **NC72B** Wall charger, **TCXO9** TCXO unit, **YF122C** 500Hz Collins CW filter, **YF122S** 2.3kHz Collins SSB filter

FT-840 Compact High Performance HF Transceiver Blending high performance digital synthesis techniques, convenience and affordability from previously successful radios, the FT-840 adds a choice of two optional remote automatic antenna tuners and a wealth of convenient functions. • Direct Digital Synthesis (DDS) • Covers 160–10M with 50kHz–30 MHz general coverage receiver • 100W output (25W AM) • 100 memory channels • Low noise FET front end • Two direct digital synthesizers (DDSS) and magnetic rotary encoder for smooth tuning • Twin band-stacking VFOs • IF shift • Reverse CW • FM repeater operation with automatic 10M repeater offset • Selectable CTCSS • Requires 13.8V DC @ 20A • 9.2"w x 3.6"h x 9.5"d, 9.9 lbs..... **$579.99**

Available Accessories:
FC10 Extra coax fed auto tuner, **FC800** Extra long wire auto tuner, **FIF232C** RS-232 interface, **FM747** FM unit, **FP1023** 23A switching power supply with fan, **FP1030A** 25A power supply with meters, **MD100A8X** Desk mic with tone control, **MLS100** Mobile speaker, **MMB20** Mobile mount, **SP6** External speaker, **SP7** External speaker, **T9018320** DC cord, **TCXO4** TCXO unit, **YF112A** 6kHz AM filter, **YF112C** 500Hz CW filter, **YH77STA** Stereo headphone

FREE ITEMS included with some radios. See Price Guide for details.

FT-847 HF/VHF/UHF All Mode Transceiver All mode operation on HF, 50MHz, 144MHz, and 430MHz with full satellite capability • Covers 160–6M, 2M, 70cm and 5.1675MHz (Alaska emergency channel) • General coverage receive: 100kHz–30MHz, 36–76MHz, 108–74MHz, 420–512 MHz • 100W output on HF/6M (25W AM); 50W (12.5W AM) on 2M/430MHz • High resolution 0.1Hz tuning steps • ShuttleJog™ tuning ring • Direct frequency keypad entry • Low noise VHF/UHF preamps built-in • Advanced DSP system enhances signal-to-noise ratio via sophisticated bandpass, noise reduction and automatic notch filters • Cross band full duplex operation • Normal/reverse tracking and dedicated satellite memories • 1200/9600 bps packet ready • CW sidetone/pitch control • Built-in CTCSS/DCS encode/decode • Four antenna jacks on rear panel • Requires 13.8V DC @ 22A • 10.2"w x 3.4"w x 10.6"d, 14.4 lbs..... **$1249.99**

Available Accessories:
ATAS100 HF/6M/2M/430MHz motorized antenna, **ATBK100** ATAS100 base kit, **CT61** Amp interface cable, **FC20** Automatic antenna tuner, **FP1023** 23A switching power supply with fan, **FP1030A** 25A power supply with meters, **FVS1A** Voice synthesizer, **MD100A8X** Desk mic with tone control, **MD200A8X** Deluxe high fidelity desk mic, **MH36D8** DTMF mobile microphone, **MMB66** Mobile mounting bracket, **SP8** External speaker with filters, **T9018320** DC cord, **YF115C** 500Hz CW/Collins Mechanical filter, **YF115S02** 2.5kHz SSB/Collins Mechanical filter, **YH77STA** Stereo headphone

We accept I.M.P.A.C.® Government Credit Cards

FT-920 HF + 50MHz All Mode Transceiver Direct digital frequency synthesis • Covers 160–6M with 100kHz–30MHz, 48–56MHz general receive • Power output adjustable up to 100W (25W AM) • Multi-function tuning dials and keyboard frequency entry • 127 memories with alphanumeric labels • Multiple scanning functions • Dual watch system • Quick memory bank (QMB) instant memory system • Built-in high-speed antenna tuner, digital voice recorder and electronic memory keyer • DSP speech processor, auto notch filter, noise reduction and VOX control • CW spot and pitch controls IF shift • QSK and built-in electronic keyer • Noise blanker • Dual antenna jack plus receive-only antenna jack • ShuttleJog™ control • Independent RX preamps for high and low bands • OmniGlow™ LCD with twin frequency displays • RS-232 computer control interface • Requires 13.8VDC @ 22A • 15.2"w x 5.3"h x 12.5"d, 24 lbs..... **$1089.99**

Available Accessories:
FM1 FM unit, **FP1023** 23A switching power supply with fan, **FP1030A** 25A power supply with meters, **LL7** Phone patch unit for SP8, **MD100A8X** Desk mic with tone control, **MD200A8X** Deluxe high fidelity desk mic, **SP8** External speaker with filters, **T9018320** DC cord, **TCXO7** TCXO unit, **YF116A** 6kHz AM filter, **YF116C** 500Hz CW filter, **YH77STA** Stereo headphone

FT-1000D 200W HF All-Mode Transceiver Judged "best overall" by top DX'ers worldwide, the FT-1000D delivers optimum receiver performance and real "muscle" on transmit. With a front panel featuring two flywheel weighted tuning knobs and two large displays, it's a perfect blend of ergonomics and electronics. Hear signals you've never heard before. • Direct Digital Synthesis (DDS) • Covers 160–10 meters with 100kHz–30MHz general coverage receive • 100 memory channels store frequency, mode, and filter selection • Up to 200W power output (AM 50W) • True cross-band dual receive (dual receiver front ends and IFs), two large tuning knobs • Front panel receive antenna switch for beverage or loop antenna • Built-in antenna tuner with 32 memories • CW spot and two CW key jacks for maximum convenience • CAT system for computer control • Built-in 110/220VAC power supply • 5.9"h x 16.4"w x 14.8"d, 31lbs..... **$3999.99**

Available Accessories:
DVS2 Voice recording module, **FIF232C** RS-232 interface, **LL5** Phone patch unit, **MD100A8X** Desk mic with tone control, **MD200A8X** Deluxe high fidelity desk mic, **SP5** External speaker, **XF455MC** 600Hz CW filter, **YF110CN** 250Hz CW filter/XFF, **YH77STA** Stereo headphone

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HF RADIOS

Manufacturer	ALINCO*	ALINCO	ICOM*	ICOM	ICOM	ICOM	ICOM	KENWOOD	KENWOOD	KENWOOD	KENWOOD	KENWOOD	MFJ
Model	DX-70TH	DX-77T	IC-706MkIIG	IC-718	IC-746	IC-756PRO	IC-775DSP	TS-2000	TS-50S	TS-570D(G)	TS-570S(G)	TS-870S	9015
Bands	HF, 6M	HF	HF, 6M, 2M, 70CM	HF	HF, 6M, 2M	HF, 6M	HF	HF, 6M, 2M 70CM, 1.2gHz	HF	HF	HF, 6M	HF	15M
Rx Range (MHz)	.15-30, 50-54	.5-30	.03-200, 400-470	.03-30	.03-200	.03-60	.01-30	.03-60, 142-152 420-450 1240-1300*	.5-30	.5-30	.5-30, 6M	.1-30	21-21.2
Power (SSB/CW/FM)	100W HF/6M	10-100W	5-100 HF/6M 5-50 2M 2-20 70CM	5-100W(7)	5-100 HF/6M/2M	5-100	5-200W	100W HF/6/2M 50W 70CM 10W 1.2gHz*	100W	5-100W	5-100W HF/6M	100W	5W CW
Power (AM)	40W HF/6M	4-40W	2-40W HF/6M 2-20W 2M 2-8W 70CM	2-40W	5-40W H/6M/2M	5-40	5-50W	25W HF/6/2M 12.5W 70CM 2.5W 1.2gHz*	5-40W	5-25W	5-25W	25W	No
DSP	No	No	Yes	Optional	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	No
Tuner	No	No	Optional	Optional	Internal	Internal	Internal	Yes	No	Yes	Yes	Yes	No
Keyer	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	No
Speech Readout	No	No	Optional	Optional	Optional	Optional	Optional	Yes	No	Optional	Optional	Optional	No
VOX	No	No	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	No
Power Requirments	12VDC, 20A	12VDC, 20A	12VDC, 20A	12VDC, 20A	12VDC, 20A	12VDC, 23A	125VAC	12VDC, 20.5A	12VDC, 20.5A	12VDC, 20.5A	12VDC, 20.5A	12VDC, 20.5A	12VDC, 12A
Antenna ports	2(1)	1	2(3)	1	3(4)	2	2	5	1	2	2	2	1
Computer Port	No	Optional	Optional	Optional	Optional	Optional	Optional	Yes	Optional	RS-232	RS-232	RS-232	No
Height (in.)	2.3	3.7	2.3	3.75	4.7	18.3	5.9	3.75	2.4	3.8	3.8	4.8	2.5
Width (in.)	7	9.8	6.6	9.44	11.3	4.3	16.7	10.625	7.1	10.6	10.6	13	6.5
Depth (in.)	9	9	7.9	9.40	12.5	11.2	15.4	12.5	9.2	10.7	10.7	13.1	6
Weight (lbs.)	6	8.4	5.5	8.4	19.5	21	36.8	17.19	6.4	15	15	25.4	2

Manufacturer	MFJ	MFJ	MFJ	MFJ	MFJ	MFJ	SGC*	SGC*	SGC	YAESU*	YAESU	YAESU	YAESU	YAESU	YAESU	YAESU	YAESU
Model	9020	9030	9040	9420X	9440X	9475X	04-01 SG-2000	04-10 POWERTALK	05-01/05-02 SG-2020	FT-100D	FT-600	FT-817	FT-840	FT-847	FT-920	FT-1000MPMKV	FT-1000D
Bands	20M	30M	40M	20M	40M	75M	HF	HF	HF	HF, 6M 2M, 70CM	HF	HF, 6M 2M, 70CM	HF	HF, 6M 2M, 70CM	HF, 6M	HF	HF
Rx Range (MHz)	14-14.075	10.1-10.15	7-7.15	14.15-14.35	7.15-7.3	3.75-4	.5-30	.5-30	1.8-29.7	.1-961(6)	.5-30	.1-56 76-154 420-470	.1-30	.1-30, 36-76 108-174 420-512	.1-30 48-56	.1-30	.1-30
Power (SSB/CW/FM)	5W CW	5W CW	5W CW	12W SSB	12W SSB	12W SSB	150W SSB/CW	150W SSB/CW	0-20W SSB/CW	100W HF/6M 50W 2M 20W 70CM	100W SSB/CW	5W	100W(2)	5-100W HF/6M 50W 2M/70CM	10-100W(2)	200W	20-200W
Power (AM)	No	No	No	No	No	No	40W	40W	No	25W HF/6M 20W 2M 12.5W 70CM	25W	1.5W	25W	25W HF/6M 12.5W 2M 12.5W 70CM	2.5-25W	50W	50W
DSP	No	No	No	No	No	No	No	Yes	No	Yes	No	No	No	Yes	Yes	Yes	No
Tuner	No	No	No	No	No	No	No	No	No	No	No	No	No	No	Yes	Yes	Yes
Keyer	No	No	No	No	No	No	No	No	Yes	Yes	No	Yes	No	Yes	Yes	Yes	Yes
Speech Readout	No	No	No	No	No	No	No	No	No	No	No	No	No	Optional	No	No	No
VOX	No	No	No	No	No	No	No	No	No	Yes	No	Yes	No	No	Yes	Yes	Yes
Power Requirments	12VDC 1.2A	12VDC 1.2A	12VDC 1.2A	12VDC 1.2A	12VDC 1.2A	12VDC 1.2A	12VDC 30A	12VDC 30A	12VDC 5A	12VDC 22A	12VDC 22A	12VDC 2A	12VDC 22A	12VDC 22A	12VDC 22A	FP29 30V (supplied)	125VAC
Antenna ports	1	1	1	1	1	1	1	1	1	2(3)	1	2	1	4(5)	2	2	1
Computer Port	No	No	No	No	No	No	Optional	Optional	Optional	Optional	Yes	Yes	Optional	RS-232	Optional	Yes	Optional
Height (in.)	2.5	2.5	2.5	2.5	2.5	2.5	4.6	4.6	2.75	2.2	Special Order 4.2	1.5	3.7	3.4	5.3	5.4	5.9
Width (in.)	6.5	6.5	6.5	6.5	6.5	6.5	10	10	6	6.3	9.7	5.3	9.4	10.2	16.1	16.4	16.4
Depth (in.)	6	6	6	6	6	6	15	15	7.25	8	11.5	6.5	9.6	10.6	12.4	13.9	14.8
Weight (lbs.)	2	2	2	2	2	2	12	12	2.5	6.6	9.9	2.6	12	14.4	30.8	31	51

*Remotable control head
*Optional module required
(1) One port for HF; one port for 6M
(2) Optional board required for FM
(3) HF/6M one port, 2M/440MHz second port
(4) Two ports for HF, one dedicated for 2M
(5) Port per band. HF/6M can be combined
(6) Cell blocked
(7) No FM

FREE ITEMS included with some radios.
See Price Guide for details.

YAESU

*Yaesu prices beyond 9/30/01 were unknown at press date.

FT-1000MP MK V 200W HF All Mode Transceiver Represents the crowning achievement in Yaesu's HF transceiver design history. A unique blend of analog and digital technology, the MARK-V is based on the concept of rigorous filtering in all stages of the receiver and transceiver. Introduces all-new features to the FT-1000 series. • IDBT (Interlocked Digital Bandwidth Tracking), which matches the receiver passbands of the 8.2 MHz IF, 455kHz IF and DSP systems • VRF (Variable RF Front-end Filter), providing a high-Q "Preselector" system protecting the receiver's front end. • 200W MOSFET Final Amplifier, conservatively rated with revolutionary heat sink design • 75W optional Class-A PA operation, providing extraordinary SSB signal purity • Integrated ShuttleJog™ control, combines the access buttons for IBDT and VRF with the convenient frequency control of Yaesu's exclusive ShuttleJog™. • High-speed automatic antenna tuner, beefed up for operation at the 200W level • Separate switching power supply, provides 30V for MOSFET PA transistors, as well as 13.8V for the other circuitry. • 16.4"w x 5.4"h x 13.9"d, 31 lbs. (xcvr), 4.2"w x 5.4"h x 13.6"d, 13 lbs. (power supply) **$2599.99**

Available Accessories:
DVS2 Voice recording module, **FH1** Remote control keypad, **FTV1000** 200W 6M transverter, **LL7** Phone patch unit for SP8, **MD100A8X** Desk mic with tome control, **MD200A8X** Deluxe high fidelity desk mic, **MH31B8** Extra hand mic, **SP8** External speaker with filters, **TCXO6** Deluxe TCXO unit, **YF110CN** 250Hz CW filter/XFF, **YF110SN** 2kHz SSB filter/XFD, **YF114CN** 250Hz CW second IF main receive, **YF114SN** 2kHz SSB second IF main receive, **YF115C** 500Hz CW/Collins Mechanical filter, **YH77STA** Stereo headphone

FTV-1000 200W 50MHz Transverter for the FT-1000MP MK V Utilizes the same high-performance power MOS FET transistors as are used in the FT-1000MP MK V. The PA stage operates at 30V DC, provided by the MK V power supply. The output devices, capable of 300W PEP, are run well below their max. ratings for high reliability. Also, the thermostatically-controlled cross-flow cooling fan keeps operation cool.

The exclusive Class-A bias capability is now extended to the FTV-1000 50MHz operation giving you the cleanest SSB signal on the band! It also features a High Dynamic Range Receiver Front End, utilizing a high-intercept design with JFETs in a double balanced mixer. Driving the mixer is a low-noise-figure MOSFET preamp, with two gain selections available. For local work, select IPO, which bypasses the internal preamp for direct feed to the mixer. A 12dB input attenuator is also available when working with extremely strong local signals.

The stylish, logically-designed front panel makes operation a breeze! High quality rocker switches control all functions, with convenient LED indicators. Its superb ergonomics are a perfect complement to the FT-1000MP MK V..... **$899.99**

ADI

SINGLE BAND MOBILE RADIOS

The AR-147+, 247 and 447 include features that one would expect to find on a modern amateur mobile including AM air receive (AR-147+ only), direct frequency entry, lots of memory channels and more. Both CTCSS and Digital Coded Squelch to ensure compatibility with all repeater systems. • MARS/CAP capable • 80 multi-function memories plus call channel • Auto repeater offset • 9 DTMF autodialer memories + redialer • Programmable band and memory scan modes • Time-out timer • DTMF paging • Dual frequency watch • PC programming capability • Frequency/channel display modes

AR-147+ 2M Mobile Transmit: 144–148MHz • Receive: 118–171MHz • Three power settings (60, 10, 5W) • 1.5" x 5.5" x 6.25", 2.7lbs **$149.99**

AR-247 220MHz Mobile Transmit: 222–225MHz • Receive: 216–229MHz • Three power settings (30, 10, 5W) • 1.5" x 5.5" x 6.25", 2.7lbs **$209.99**

AR-447 70 Centimeter Mobile Transmit: 430–450MHz • Receive: 420–460MHz • 3 power settings (35, 10, 5W) • 1.5" x 5.5" x 6.25", 2.7lbs .. **$209.99**

Available Accessories:
MTGBKT Mobile bracket, **PROG47** PC programming software and cable, **PWRCORD** DC cable, **PREMMC100** Premier sun visor mobile mic

ALINCO

AMATEUR RADIO'S VALUE LEADER℠

SINGLE BAND MOBILES

DR-M06TH 6M FM Transceiver Covers 50-54MHz • FM, selectable 20/1W output • 100 memories plus CALL channel • 50 tone CTCSS encoder • Programmable repeater offset for each memory channel • Time-out-timer • 13.8V DC @ 3A • 5.5"w x 1.5"h x 4.5"d, 1.6 lbs • Includes DTMF hand mic.. **$259.99**

Available Accessories:
HK130 Hardware kit, **MB130** Mounting bracket, **PC15B** DC cable

FREE ITEMS included with some radios. See Price Guide for details.

DR-135TP 2M Mobile/Base Voice/Data Transceiver 144–148MHz tx; 118–135.995MHz (AM aircraft), 136–173.995MHz rx • 50W/10/5W • Wide or narrow FM • 1200/9600bps TNC • 100 alphanumeric memories, 1 call • 7-character, 3-mode display • CTCSS/DCS plus 4 European bursts • Backlit DTMF mic • 10 autodialer memories • Multi scan modes • Front panel GPS input • Rear panel PC connection • Ignition key on/off • Theft alarm • 13.8V DC @ 11A • 5.58"w x 1.57"h x 6.83"d, 2.3 lbs.... **$269.99**

DR-135T Same, but no TNC..... **$169.99**

DR-235T Same, except covers 222–224.995MHz tx, 216–279.995MHz rx • 25W/10/5W **$249.99**

DR-435T Same as DR-135T, except covers 430–450 MHz tx, 400–470MHz rx • 35W..... **$259.99**

Available Accessories:
EDC37 DC cable, **EDC43** Cigarette lighter cable, **EJ40U** Digital board, **EJ41U** 1200/9600 TNC (T-series only), **HK130** Hardware kit, **MB130** Mounting bracket, **PC15B** DC cable

DUAL BAND MOBILES

DR-605TQ FM Dual Band Mobile 144–147.995 MHz and 430-449.995MHz tx; 136–173.995MHz and 420–470MHz rx • 50W/10/5W (VHF), 35/10/5W (UHF) • 50 memories, 1 call channel per band • Cross band repeat and full duplex modes • Dual VHF/UHF only displays • Multi scan functions • CTCSS encode, 3 European tone bursts • Twin volume controls • Packet compatible • Cable cloning function • Internal antenna duplexer • MARS/CAP capability • 13.8V DC @ 11.5A • 5.58"w x 1.57"h x 6.8"d, 2.4lbs **$339.99**

Available Accessories:
EDS8 EMS14 to DR605 adapter, **EMS14** Desk top mic, **HK130** Hardware kit, **MB130** Mounting bracket, **PC15B** DC cable

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MOBILE DX MASTER

Since its introduction over a year ago, Yaesu's FT-100 HF/VHF/UHF Transceiver has been widely acclaimed for its outstanding performance and flexibility. Now the FT-100D builds on this success story, adding the convenience of factory-installed modules for today's Ham on the go!

FT-100D HIGHLIGHTS

The FT-100D is a high-performance, ultra-compact transceiver operating on the 160-10 meter HF bands, plus the 50, 144, and 430 MHz VHF/UHF bands. Known for its outstanding receiver performance, the FT-100D's easy-to-access DSP system is the cornerstone of the outstanding receiver capability. Providing Noise Reduction, Auto-Notch, and Narrow-Bandwidth Filter selection, the DSP system also includes a Microphone Equalizer for the transmit side.

The new and enlarged speaker of the FT-100D (ϕ66 mm) provides spectacularly clean audio output, to help you dig out those weak signals.

Whether at home or away, the fantastic new FT-100D is The Choice of the World's Top DX'ers. Step up to the FT-100D, and enjoy the thrill of the sunspot peak in style!

MICRO MOBILE

FT-100D

Ultra-Compact HF/VHF/UHF Transceiver

YAESU
Choice of the World's Top DX'ers

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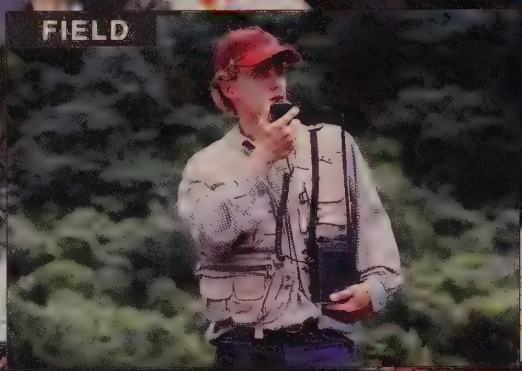
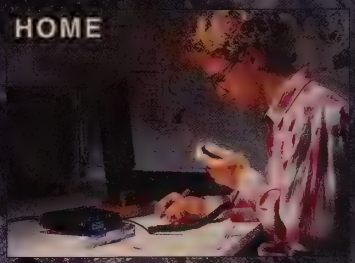
The Ultimate Backpacker!

Ham Radio in the Great Outdoors: It's the Best with Yaesu's FT-817!





Actual Size

Bring Ham Radio along on your next hiking, camping, or business trip with Yaesu's amazing new FT-817 Multimode HF/VHF/UHF Portable Transceiver!

- **ULTRA COMPACT:** Measuring just 5.3"x 1.5"x 6.5" WHD (135 x 38 x 165 mm) and weighing about 2½ pounds (1.17 kg, including the supplied antenna and alkaline cells), the FT-817 is small and light enough to take along wherever you're going.
- **WIDE FREQUENCY COVERAGE:** 160-10 meters on HF, plus the 50, 144, and 430 MHz Amateur bands. Plus FM Broadcast, AM Aircraft, and Public Safety receiver coverage.
- **MULTIMODE DESIGN:** Ready for action on SSB, CW, AM, FM, FM-Wide (Rx), 1200/9600 bps Packet, and Digital, including dedicated USB and LSB PSK-31 configurations.
- **5 WATTS POWER OUTPUT:** Using a new-technology all-band MOS FET power amplifier, the FT-817 provides 5 Watts of power output when using a 13.8 Volt DC source. When using Alkaline batteries or the optional FNB-72 Ni-Cd Battery Pack, power is automatically set to 2.5 Watts; via Menu, this can be changed to 0.5 Watt, 1 Watt, or up to 5 Watts.
- **WIDE CHOICE OF POWER SOURCES:** The FT-817 is equipped with an alkaline "AA" cell battery case, and a 13.8 volt DC cable is also supplied. Available as an option is the FNB-72 Ni-Cd Battery Pack (9.6 V, 1000 mAh), which can be recharged using a 13.8 Volt power supply while the radio is being operated.
- **TWO ANTENNA PORTS:** A "BNC" connector is provided on the front panel, and a type "M" connector on the rear panel, with Menu selection of which connector will be assigned for operation on HF, 50 MHz, 144 MHz, and 430 MHz.
- **OPTIONAL COLLINS® MECHANICAL FILTERS:** An optional filter slot is provided, accommodating either the YF-122S (2.3 kHz) 10-pole SSB filter or the YF-122C (500 Hz) 7-pole CW filter. You get "base station" performance even from a mountain top.
- **INCREDIBLE MEMORY RESOURCES:** You get a total of 208 memories, including 200 "regular" memories which may be separated into ten groups of up to 20 channels each. And you can append an Alpha-Numeric "Tag" to each memory to aid in channel identification.
- **A CW OPERATOR'S DREAM MACHINE.** You get a built-in Electronic Keyer with adjustable weighting, adjustable CW Pitch, CW Normal/Reverse frequency tuning, and you can even use the microphone's UP and DOWN keys to send CW via the Keyer.
- **BUILT-IN CTCSS AND DCS:** The built-in CTCSS and DCS Encoder/Decoder systems provide you with the versatility you need for repeater access or selective calling.
- **DUAL - COLOR LIQUID CRYSTAL DISPLAY:** Select from Blue or Amber display illumination, which can also be switched off to conserve battery life. And while you're away, the Spectrum Scope will provide you with a visual record of activity ±5 channels from your current operating frequency.

ALL MODE PORTABLE TRANSCEIVER

FT-817

HF/50/144/430 MHz Multimode Transceiver

YAESU

Vertex Standard
US Headquarters
17210 Edwards Road,
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For the latest Yaesu news,
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See the exciting new FT-817 at your Yaesu Dealer's showroom today!

Specifications subject to change without notice. Specifications guaranteed only within Amateur bands. Some accessories and/or options are standard in certain areas. Frequency coverage may vary in your country. Check with your local Yaesu dealer for specific details.

Simultaneous Reception

VHF/VHF | UHF/UHF | VHF/UHF

A New Dual-Band Engineering Milestone:

Introducing the Dual Band Mobile for the 21st Century's Active Ham!

The Yaesu Engineering Team has done it again! The exciting new FT-7100M Dual Band Mobile brings you the ruggedness and operating ease of our single-band mobiles, and the convenience of remote-head mounting capability (optional YSK-7100 Separation Kit required), in an all-new 144/430 MHz Dual Band design!

Providing 50 Watts of power output on 2 meters, and 35 Watts on 70 cm, the FT-7100M has power to spare when you're in a fringe area. For repeater access or selective simplex calling, you get built-in encoder-decoder circuits providing 50 CTCSS tones and 104 DCS (Digital Code Squelch) codes. And the FT-7100M's huge 262-channel Memory System lets you store up to six Alpha-Numeric characters, for easy channel identification.

Operation of the FT-7100M is simple and straightforward, with separate Volume and Squelch controls for each band during dual-band reception, and eight single-function front panel keys provide the easy feature access you need during mobile operation. What's more, you also get three user-definable keys on the microphone to use for important control functions.

Rugged, reliable, and versatile, the FT-7100M provides the highest cost-performance available among Dual Band FM Mobiles. See your Yaesu Dealer today for a test drive!

144/430 MHz FM Dual Band Mobile Transceiver

FT-7100M

FEATURES

- Frequency Range: TX 144-148, 430-450 MHz RX 108-137 MHz (AM), 137-180 MHz, 320-480 MHz, 810-999.99 MHz (Cellular blocked)
- VHF/UHF, VHF/VHF, and UHF/UHF Dual Receive operation*
- Channel Steps: 5/10/12.5/15/20/25/50 kHz/step
- Power Output: 50 Watts (144 MHz) 35 Watts (430 MHz)
- Power Amplifier Type: 2SK3478 Power MOS FET
- Efficient Cooling System: Direct-flow heat-sink and thermostatically-controlled fan
- 262 Memory Channels: 120 "regular" memories, 5 pairs of band limit memories, and one "HOME" channel on each band
- Alpha-Numeric Memory Labels: 6 Characters on lower display field, 5 Characters on upper
- Smart Search™ Automatic Memory Loading System
- 50 CTCSS Encode/Decode Tones
- 104 DCS Encode/Decode Codes
- CTCSS and DCS Search
- ARTS™ (Auto-Range Transponder System)
- Automatic Repeater Shift (ARS)
- DTMF Microphone (U.S. version): Includes 16-memory Auto-dialer, and Direct Frequency Entry
- Band Scanning, Band-Limit Scanning, and Memory Scanning
- Three Priority Channel Modes: VFO, Memory, and Home Channel Priority
- RF Squelch: Opens at user-defined signal level
- Tx Time-Out Timer (TOT)
- Automatic Power-Off (APO)
- 1200/9600 bps Packet Compatible
- Battery Voltage Meter
- Compact Size: 5.8" x 1.9" x 6.9" WHD
- Large (0.9" x 2.3") Liquid Crystal Display
- Cloning Capability: To other FT-7100M Transceivers
- Optional YSK-7100 Separation Kit
- Optional CT-39A Packet Cable

*Simultaneous reception on two different Frequencies, in-band or Cross-Band. Cross-band Repeater Function not available.

Actual Size

For the latest Yaesu news, visit us on the Internet: http://www.vxstd.com

Specifications subject to change without notice. Some accessories and/or options may be standard in certain areas. Frequency coverage may differ in some countries. Check with your local Yaesu Dealer for specific details.

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Vertex Standard
US Headquarters
17210 Edwards Road,
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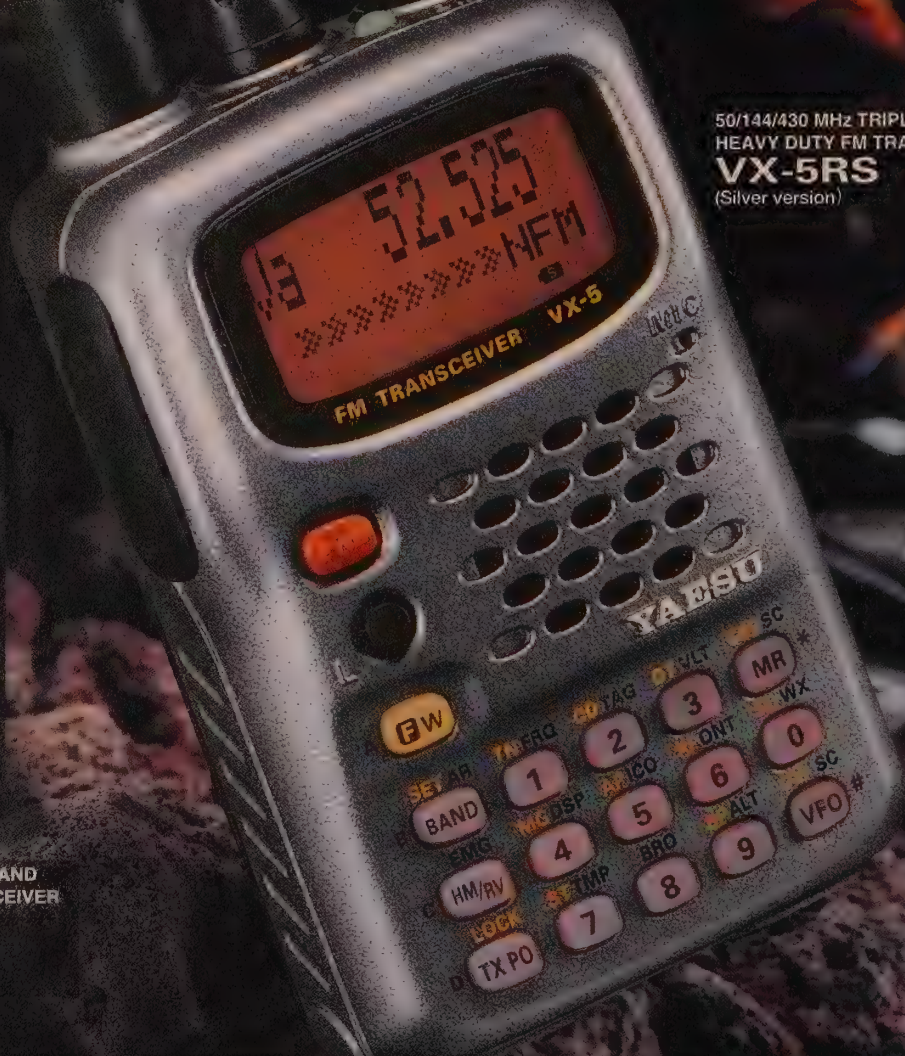
Metallic Silver

The VX-5R, the world's most popular Triple-Band Hand-Held FM Transceiver, is now available in a beautifully-crafted Silver version: the VX-5RS! With the legendary VX-5R performance flexibility, the stylish VX-5RS is the shining star for Amateur VHF/UHF operation!

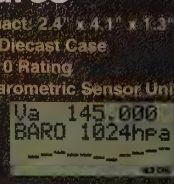
50/144/430 MHz TRIPLE-BAND
HEAVY DUTY FM TRANSCEIVER
VX-5R
(Black version)



50/144/430 MHz TRIPLE-BAND
HEAVY DUTY FM TRANSCEIVER
VX-5RS
(Silver version)

Features

- Ultra Compact: 2.4" x 4.1" x 1.3"
- Aluminum Diecast Case
- MIL-STD 810 Rating
- Optional Barometric Sensor Unit



- Frequency Coverage
  Wide Band Receive
  RX : 0.5-15.995 MHz 48-728.990 MHz
  800-998.990 MHz (Cellular Blocked)
  TX : 50-54 MHz 144-148 MHz
  430-450 MHz
- 5 W Power Output (430 MHz: 4.5 W)
- AM/Shortwave Receive
- AM Aircraft Receive
- High-Capacity Lithium-Ion Battery: 7.2 V @ 1100 mAh
- CTCSS and DCS Built In
- Dot Matrix LCD
- Dual Watch
- Spectra-Scope™ Graphical Display
- 220 Memories plus "Home" Channels
- Ten Pairs of "Band Limit" Memories
- Ten Auto-Scan Weather Channels (North American version)
- 8-Digit Alphanumeric Memory Tags
- Convenient Icon Display Mode
- Smart Search™ Automatic Memory Loading
- Automatic Repeater Shift
- Auto-Range Transponder System (ARTS™)
- Multiple Battery Savers
- Time-Out Timer (TOT)
- Busy Channel Lock Out (BCLO)
- Versatile High-Speed Scanning
- 16-Digit 9-Memory DTMF Autodialer
- One-Touch Emergency Channel
- ADMS Windows™ PC Programmable
- Innovative Multi-Section Antenna
- Full Line of Accessories

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Choice of the World's Top DX'ers

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Specifications subject to change without notice. Some accessories and/or options may be standard in certain areas. Frequency coverage may differ in some countries. Check with your local Yaesu Dealer for specific details.

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- Fox Hunt (5 pm Saturday)
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ORLANDO AMATEUR RADIO CLUB

ICOM

SINGLE BAND MOBILE

IC-2100H 2 Meter Rugged Transceiver Icom's newest and best performer against IMD. Straight-forward, easy-to-use operation • 50/10/5W • 144-148MHz transmit • 136~174MHz receive • One-touch button operation (no function key used) • 113 memory channels • Cool dual display: selectable green or amber backlit display • Large, easy-to-see, user-programmable, alphanumeric display • 4 backlighting levels • Backlit DTMF microphone with 2 user-programmable keys • Heavy duty, one-piece, die cast aluminum chassis • Adjustable attenuator • CTCSS tone encode and decode built-in (program up to 50 tones) • Tone scan built-in • Auto repeater with busy lockout • Priority watch (3 types) • Cloning capability • Mounting bracket included • Built to MIL STD 810 C/D/E for shock and vibration • Requires 13.8V DC @ 12A • 5.5"w x 1.6"h x 7.1"d, 2 lb, 10 oz **$169.99**

Available Accessories:
BC96 Microphone holder, **CSW2100** Windows software and cable, **CS2100** DOS cloning software, **EX1513** Infrared receive range extend, **EX1759** Infrared receiver, **HM90A** Wireless microphone, **HM98S** Replacement TTP mic, **HS62** Flexible mobile mic, **MB17A** Quick release bracket, **MB28H** Mobile bracket, **OPC346** 9.8' DC cable, **OPC347** 23' DC power cable, **OPC440** 16.4' mic extension cable, **OPC441** Speaker extension cable, **OPC474** Radio-to-radio cloning cable, **OPC478** PC cable, **OPC589** 8-pin mic jack adapter cable, **OPC647** 8.2' mic extension cable

DUAL BAND MOBILES

IC-207H 2M/440MHz Super Compact Dual Bander • 50W (VHF), 35W (UHF) • Transmit 144–148MHz and 440–450MHz • VHF wideband receive: 118-174MHz (includes Air Band) • 162 memory channels • Works one band at a time. Switch between bands with a touch of the large blue button • 9600 baud packet ready • CTCSS encode and decode • Auto repeater function • Multi-function backlit remote control microphone • Optional wireless microphone • 4 power settings per band • Big dials; big keys; big, bright display – easy-to-use on the GO! • Cloneable with optional software and cable • 5.5"w x 1.6"h x 8.4"d, 3.1 lbs **$299.99**

Available Accessories:
BC96 Microphone holder, **CSW207/2710** Windows software, **CS207** DOS programming software, **EX1513** Infrared receive range extend, **EX1759** Infrared receiver, **HM90A** Wireless microphone, **HS62** Flexible mobile mic, **MB17A** Quick release bracket, **MB28H** Mobile bracket, **MB58** Remote controller bracket, **OPC346** 9.8' DC cable, **OPC347** 23' DC power cable, **OPC440** 16.4' mic extension cable, **OPC441** Speaker extension cable, **OPC589** 8-pin mic jack adapter cable, **OPC600** 11.5' separation kit, **OPC601** 23' separation kit, **OPC646** Programming cable, **OPC647** 8.2' mic extension cable, **RMK3** MB58/OPC600/OPC647 package

IC-2800H VHF/UHF Dual Band FM Transceiver Top-of-the-line, advanced 2M/440MHz mobile dual bander. LCD has user-selectable display modes and video capabilities. • 50W (VHF), 35W (UHF) • TX: 144–148MHz and 430–450MHz • VHF wideband receive: 118–174MHz • 232 memories • 3" multi-function TFT color LCD • NTSC video port – display SSTV, CCD camera input, video input • 4 display modes to suit personal preference • Separate control head with connection cable and 2 mounting brackets • Independent tuning controls • Simple bandscope function • 9600 bps packet terminal • CTCSS enc/decoder • Crossband full duplex capability • Built-in duplexer • Selectable squelch attenuator & delay • Remote control capability • Built-in auto repeater • Time-out timer • Auto power off • PC programmable • Full function, backlit mic • Optional wireless infrared mic • Requires 13.8V DC @ 12A • 5.5"w x 2.75"h x 1.3"d, 10.2 oz. (head); 5.5"w x 1.6"h x 6.6"d, 2 lb, 9 oz. (body) **$499.99**

Available Accessories:
CS2800 Windows cloning software, **EX1513** Infrared receive range extend, **EX1759** Infrared receiver, **HM90A** Wireless microphone, **MB17A** Quick release bracket, **MB28H** Mobile bracket, **MB65** Mounting base platform, **MB73** Controller bracket, **OPC346** 9.8' DC power cable, **OPC347** 23' DC power cable, **OPC440** 16.4' mic extension cable, **OPC478** PC cable, **OPC589** 8-pin mic jack adapter cable, **OPC647** 8.2' mic extension cable, **OPC872** Controller extension cable, **SP10** Slim-line external speaker, **UT49** DTMF decoder

KENWOOD

SINGLE BAND FM MOBILE TRANSCEIVERS

Fully loaded with features and built to demanding MIL-STD specifications. Supremely user-friendly. • High RF output • 61 multi-function memory channels plus 1 call channel • Memory Name (MN) function with 6-digit alphanumeric display • DTSS selective calling • Multi-scan capability • Dual menu system • Multi-function microphone with backlit keys • DTMF memory function • Built-in CTCSS tone encoder (optional decoder) • Tone scan • Wireless cloning function • Repeater reverse switch • Lock function • Busy channel lock out • Auto power-off • Time-out timer • 13.8V DC @ <11A • 5.5"w x 1.5"h x 6.3"d, 2.2 lbs.

TM-261A 2M *(pictured)* 144-148MHz transmit; 118-174MHz receive • AM Airband receive • 50/10/5W • Auto repeater offset **$169.99**

TM-461A 440MHz 438-450MHz transmit; 400-470 MHz receive • 35/10/5W • Looks similar to TM-261A except for frequency display **$439.99**

Available Accessories:
MB201 Mobile brket, **PG2N** DC cable, **TSU8** CTCSS decoder

TM-331A 220MHz FM Mobile Transceiver Rugged and compact with features that guarantee reliable performance. Covers 222-225MHz transmit and receive • 25/10/5W • Easy-to-read illuminated keys plus large LCD display • 20 multi-function memory channels plus call channel • Multi-scan capability • Tone alert with elapsed time indicator • Page function • CTCSS tone encoder • Time-out timer • Lock function • Auto repeater offset • Repeater reverse switch • Multi-function mic supplied • 13.8V DC @ 6.5A • 5.5"w x 1.5"h x 6.3"d, 2.5 lbs **$499.99**

Available Accessories:
KQT8 CTCSS decoder, **MB201** Mobile brket, **PG2N** DC cable

TM-541A 1200MHz FM Mobile Transceiver Extremely compact and lightweight, perfect for mobile installation. Enhanced night-time operation with its illuminated keys, large LCD, and backlit microphone with DTMF. Covers 1240-1300MHz transmit and receive • 10W RF power output • Easy-to-read, easy to operate illuminated keys plus large LCD display • 20 multi-function memory channels plus call channel • Built-in CTCSS tone encoder • ALT (Automatic Lock Tuning) • Tone alert system with elapsed time indicator • DTSS (Dual Tone Squelch System) • Pager function • Auto-power off • Time-out timer • Multi-scan function • Programmable call • Programmable VFO • Offset and repeater reverse switches • Multi-function backlit DTMF microphone supplied • 13.8V DC @ <6A • 5.5"w x 1.5"h x 6.3"d, 2.4 lbs **$449.99**

Available Accessories:
DTU2 Digital paging unit, **KQT8** CTCSS decoder, **MB201** Mobile brket, **PG2N** DC cable

FREE ITEMS included with some radios. See Price Guide for details.

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KENWOOD

DUAL BAND UHF/VHF MOBILES

High performance multi-banders that can receive three bands simultaneously (with the addition of an optional band unit). Available detachable front panel kit and wireless remote control functions (by external DTMF signal) add versatility. Triple receive function with triple display • Selectable frequency step • Built-in DTSS selective calling with page • 101 memories and memory bank system • Flexible scan and scan stop modes • Tone alert system with elapsed time indicator • Triple repeater functions • S-meter squelch • Separate antenna and speaker terminals, squelch and volume control per band • Automatic band change • Sub-band muting • Date/time display, stopwatch, alarm • On/Off timer • Time-out timer • Auto power-off • 13.8V DC @ <11A • 5.9"w x 1.5"h x 6.8"d, 3.3 lbs.

TM-642AD 2M/220MHz *(pictured)* 144-148MHz transmit/118-174MHz receive and 222-225MHz transmit/215-235MHz receive • 50/10W (2m); 25/10W (220MHz) **$739.99**

TM-742AD 2M/440MHz 144-148MHz tx/118-174MHz rx and 438-450MHz tx/410-438MHz rx • 50/10W (2m); 35/10W (440MHz) • Looks like TM-642AD except frequency display..... **$639.99**

Available Accessories:
DFK3 9' separation display cable kit, **DFK4** 13' remote cable kit, **DFK7** Deluxe 22' remote kit, **MB14** Quick release mobile mount, **MJ88** Modular/8-pin adapter, **PG2N** DC cable, **TSU7** CTCSS decoder unit, **UT1200** 10W 1.2GHz unit, **UT220S** 25W 220MHz unit, **UT440S** 35W 440MHz unit, **UT50S** 50W 6M unit

TM-G707A 144/440MHz FM Dual Bander Extraordinarily user-friendly with its extra-large detachable control panel. Transmit ranges: 144-148 MHz and 430-450MHz; receive: 118-174 and 410-524MHz • 50/10/5W (VHF); 35/10/5W (UHF) • Detachable control panel with high-visibility amber-colored LCD display • 180 multi-function memory channels with alpha-numeric ID • Multi-scan functions • Priority scan function • Built-in CCTSS encoder and decoder • 1200/9600bps packet ready • Cross band repeater access • Selectable frequency step • S-meter squelch • Time-out timer • Dimmer control • Auto power-off • Multi-function backlit microphone with DTMF • 13.8VDC @ 11A • 5.5"w x 1.5"h x 7.4"d, 2.7 lbs **$299.99**

Available Accessories:
DFK3C 9' cable kit, **DFK4C** 13' cable kit, **DFK7C** Deluxe 23' remote kit, **MB201** Mobile bracket, **MJ88** Modular/8-pin adapter, **PG2N** DC cable, **PG4S** PC interface cable, **PG5A** Packet data cable, **VS3** Voice synthesizer

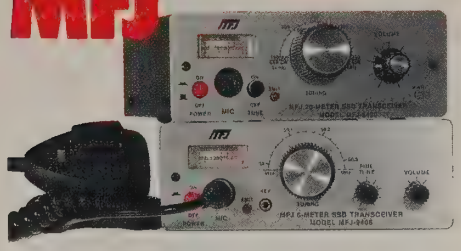
TM-D700A Data Communicator 144/440MHz Dual Bander Fully equipped to complement SSTV, GPS and APRS® operations. 144-148MHz and 430-450MHz transmit • Wide-band receive: 118-148, 136-175, 300-524 and 800-1300MHz (cell blocked) • 50/10/5W (VHF); 35/10/5W (UHF) • Detached control panel with extra-large backlit LCD and multi-function key display • Backlit microphone with alphanumeric input • Easy-to-use menu system • Advanced APRS-99 features • Built-in 1200/ 9600 bps TNC (AX.25) • DX cluster monitoring • Dual receive on same band for voice and data • 200 memory channels with 8-character alphanumerics • 2 call channels • 10 programmable memory scan banks • Built-in CTCSS and 1750 tone burst • Digital Code Squelch (DCS) • DTMF memory • Cross band and fixed band repeater operation • DCS code scan, tone, CTCSS scan • 10-channel program scan • Visual band scope • 13.8VDC @ 11.5A • 5.5"w x 2.4"h x 1.2"d, 0.4 lbs. (control), 5.5"w x 1.2"h x 7"d, 2.6 lbs. (main)..... **$599.99**

Available Accessories:
MB201 Mobile bracket, **MJ88** Modular/8-pin adapter, **PG2N** DC cable, **PG4X** 13' extension cable kit, **PG5A** Packet data cable, **VS3** Voice synthesizer

TM-V7A 144/440 MHz FM Dual Bander Easy-to-operate control panel with dual mode cool-blue reversible LCD, offering both positive and negative display modes. Use with a PC, GPS, packet TNC or operate APRS position reporting and message system locally or nationally. Transmit: 144-148, 430-450MHz; receive: 118-174, 410-470MHz • 50/10/5W (VHF); 35/10/5W (UHF) • Data connector and separate automatic digital channel for APRS® • Detachable control panel • Dual receive on same band • Up to 280 multi-function memory channels (180 with 7-character alphanumerics) • Multi-scan functions • DTSS selective calling with page function • Built-in CTCSS enc/decoder • 1200/9600bps packet ready • Friendly operating menu • Automatic band change • Selectable frequency steps • S-meter squelch • Time-out timer • Audible frequency ID • Auto repeater offset (144MHz) • Auto power-off • Backlit multi-function mic with DTMF • 13.8VDC @ 10A • 5.5"w x 1.5"h x 7.4"d, 2.7 lbs **$419.99**

Available Accessories:
DFK3C 9' cable kit, **DFK4C** 13' cable kit, **DFK7C** Deluxe 23' remote kit, **MB201** Mobile bracket, **MJ88** Modular/8-pin adapter, **PG2N** DC cable, **PG4S** PC interface cable, **PG5A** Packet data cable, **VS3** Voice synthesizer

MFJ ENTERPRISES, INC.



LOW POWER SINGLE BAND SSB MOBILE TRANSCEIVERS

Easy to operate! No microprocessor – just turn on and tune in. • 20W PEP (Less on VHF models) – plus Constant Current™ syllabic speech processing for an added 4–6dB advantage to cut through noise, fading, and QRM. Includes a handheld dynamic mic that complements the speech processing. • Low drain – 3A from 12V supply or battery. • Low noise preamp and active double balanced mixer front end • Excellent selectivity – Sharp 2.3 kHz SSB crystal ladder filter reduces passband noise, fights QRM, and improves intelligibility • TVI protection (built-in 7 element lowpass filter) • Real S-meter: Position your beam with accuracy and give meaningful reports. Also, monitor speech processing level. • Agile tuning – reduction drive analog VFO lets you scan the band for signals quickly, then zero in smoothly • Amplifier jack • 2.5"h x 6.5"w x 6"d, 2lbs.

9402X 2M SSB Adventure Radio™, 7W.... **$269.99**

9406X 6M SSB Adventure Radio™, 10W.. **$249.99**

9410X 10M SSB Adventure Radio™, 20W **$249.99**

Available Accessories:
1770A 10M dipole for 9410X, **4110** Portable AC power supply, **4114** Rechargable power pack, **416** CW adapter, **971** 200W HF tuner (9410X only)

VHF DATA RADIOS

Don't tie up your expensive rig on a single packet channel, check out these low-cost MFJ Data Radios.

8621 PacketOnly™ 2m Transceiver Compatible with all TNCs with hardware DCDs and most TNCs with software DCDs • 1200/9600 baud • 5W output • Low current drain (15mA on receive and less than 1 amp on transmit) • 5"w x 5"d x 1.5"h • Crystals installed for 145.01MHz **$139.99**

8621X2 PacketOnly™ 2m Transceiver Ready for APRS use. • Crystalled and aligned for 144.390MHz • 5W output..... **$149.99**

Available Accessories:
4110 Portable AC power supply, **5100** Data radio cable (MFJ/TAPR), **5100X** Data radio cable (PK232), **5100YH** Data radio cable (KPC9612), **5100YV** Data radio cable (KAM/KPC3), **5106** Open end (6-pin mini Kenwood/Yaesu)

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FREE ITEMS included with some radios. See Price Guide for details.

RANGER Communications, Inc.

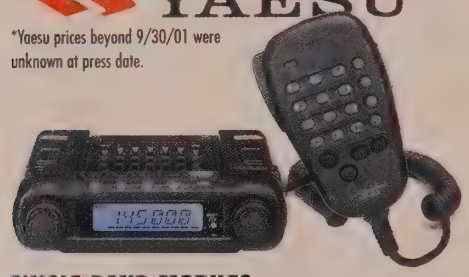
DUAL BAND MOBILES

RCI-2950DX 10/12 Meter Transceiver An old favorite updated with 12M band, improved receiver, double FET balanced mixer, surface mount components and improved display lighting. Covers 24.8-24.990 and 28.0-29.7MHz • 25W (SSB), 12W (CW), 10W (AM/FM) • Dual VFO • RIT • Noise blanker • Standard repeater offsets • Programmable tone • Large display with 4-step dimmer • Scanning • 10 programmable frequencies • Lockout..... **$269.99**

RCI-2970DX Higher power version. 150W (SSB PEP), 50W (CW/FM/AM) **$399.99**

YAESU

*Yaesu prices beyond 9/30/01 were unknown at press date.



SINGLE BAND MOBILES

FT-1500M 2M FM Transceiver Transmit: 144-148MHz, receive: 134-174MHz • 10 NOAA weather channels with "Weather Search" • 50/25/10/5W • Alphanumeric channel display • 130 multi-function memories with 6-character alphanumeric labels • SmartSearch™ automatic memory loading • Priority channel • 16-digit, 8 memory DTMF autodialer • 50-tone CTCSS enc/decode • Bell alert CTCSS paging • Auto repeater shift • 1200/9600 baud compatible, rear panel data jack • Time-out timer • Auto power off • DTMF direct access mic • MIL-STD 810 D/E • DC voltage display • 13.8V DC @ 9.5A • 5"w x 1.4"h x 4.9"d, 2.2 lbs..... **$149.99**

Available Accessories:
ADMS2F Programming software, **MH36C8J** Extra TTP microphone, **MLS100** Mobile speaker, **RA0242900** Mobile bracket, **SP7** External speaker, **T9021810** DC cable

FT-2600M Heavy-duty 2M FM Transceiver Transmit: 144-148MHz, receive: 134-174MHz • Selectable channel steps • Advanced track tuning • 60/25/10/5W • Alphanumeric channel display • Programming menu holds 33 operational settings • 175 multi-function memories with 8-character alphanumeric labels • High-speed, multifunction scanning • SmartSearch™ automatic memory loading • Auto Range Transpond System™ • CTCSS and DCS encode/decode • Automatic repeater shift (ARS) • 1200/9600 baud compatible, rear panel data jack • Time-out-timer • Auto power-off • Back-lit DTMF direct access microphone provides user-programmable function keys • 8-memory, 16-digit DTMF autodialer • Front mounted speaker • PC programmable with optional software • DC voltage display • MIL-STD 810 rating • 13.8V DC @ 9.5A • 6.3"w x 1.6"h x 6.3"d, 2.9 lbs..... **$169.99**

Available Accessories:
ADMS2E Programming software, **MLS100** Mobile speaker, **MMB48** Mobile bracket, **SP7** Ext. spkr, **T9021810** DC cable

FT-3000M High-Powered 2M FM Transceiver Transmit: 144-148MHz • Wideband receive: 110-180, 300-520, 800-824, 849-869 and 894-999MHz (cell blocked) • Sub-receiver (split and full duplex cross band, dual watch) • 70/50/25/10W (twin cooling fans) • Programming menu holds over 50 operational settings • 81 memories • Programmable memory scanning and tuning, SmartSearch™ • Large alphanumeric LCD display • CTCSS and DCS encode • Digital coded squelch (DCS) • Spectrum scope • ARTS™ • 1200/9600 baud compatible ready • Auto repeater shift • Adjustable display brightness • Time-out-timer • Auto power-off • Back-lit DTMF direct-access mic (user programmable function keys) • 13.8V DC @ 15A • MIL-STD 810 rating • 5.5"w x 1.6"h x 7.1"d, 2.8 lbs..... **$399.99**

Available Accessories:
ADMS2D Programming software, **CT39** Packet cable, **DVS4** Voice recording module, **FTS17A** Decoder, **MLS100** Mobile speaker, **MMB36** Mobile bracket, **MMB60** Quick release mobile mount, **SP7** External speaker, **T9021810** DC cable

DUAL BAND MOBILES

FT-90R 2M/440MHz FM Transceiver Micro-sized with built-in cooling fan • TX: (2M) 144-148MHz; (440MHz) 430-450MHz • Wideband rx: 100-230, 300-530, 810-999.975MHz (cell blocked), includes AM aircraft • 50/20/10/5W (2M), 35/20/10/5W (440 MHz) • 186 memories with alphanumeric labels • 5 scanning modes • Built-in CTCSS/DCS enc/dec • ARTS™ • 1200/9600bps compatible • Auto repeater shift • Time-out-timer • Ultra-compact remote-head capability • DTMF direct access mic with user-programmable keys • 8-memory, 16-digit DTMF autodialer • Memory cloning • 13.8V DC @ 9.5A • 3.9"w x 1.2"h x 5.4"d, 1.42 lbs..... **$319.99**

Available Accessories:
ADMS2E Programming software, **MEK2** Mic extension kit, **MLS100** Mobile speaker, **RA0131900** Mobile bracket, **SP7** External speaker, **T9021810** DC cable, **YSK90** Remote separation kit

FT-7100M Dualband Mobile The ruggedness and operating ease of single band mobiles, and the convenience of remote head mounting capability in a 144/430MHz dualband design. • 144-148, 430-450MHz tx; 108-137MHz (AM), 137-180MHz, 320-480MHz, 810-999.99MHz (cell blocked) rx • Dual receive: VHF/UHF, VHF/VHF, UHF/VHF • Selectable channel steps • 50W (144MHz), 35W (430MHz) power output • Efficient cooling system: Direct-flow heat-sink and thermostatically-controlled fan • 262 memory channels (120 regular, 5 pairs of band limit memories, and one "HOME" channel on each band) • Alphanumeric memory labels (6 characters on lower display field, 5 characters on upper) • SmartSearch™ auto memory loading system • 50 CTCSS encode/decode tones and 104 DCS encode/decode codes • CTCSS/DCS search • Auto-Range Transponder System • Band, band-limit, and memory scanning • 3 priority channel modes (VFO, memory, and home channel priority) • RF squelch – opens at user-defined signal level • Auto power-off • 1200/9600bps packet compatible • 5.8"w x 1.9"h x 6.9"d • 0.9" x 2.3" LCD display **$299.99**

Available Accessories:
AD3 100W 2M/440 duplexer, **CT39** Packet cable, **MEK2** Mic extension kit, **MLS100** Mobile speaker, **MMB60** Quick release mobile mount, **MMB62** Remote control panel bracket, **SP7** External speaker, **YSK7100** Remote separation kit

FREE ITEMS included with some radios. See Price Guide for details.

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Manufacturer	ADI	ADI	ADI	ALINCO	ALINCO	ALINCO	ALINCO	ICOM	KENWOOD	KENWOOD	KENWOOD	KENWOOD	MFJ	MFJ	MFJ
Model	AR-147+	AR-247	AR-447	DR-M06TH	DR-135T & TP	DR-235T	DR-435T	IC-2100H	TM-261A	TM-331A	TM-461A	TM-541A	8621	8621X2	9402X
Band	2 meters	220MHz	440MHz	6 meters	2 meters	220MHz	440MHz	2 meters	2 meters	220MHz	440MHz	1.2GHz	2 meters	2 meters	2 meters
TX Range (MHz)	144-148	222-225	430-450	50-54	144-148	222-224.995	430-449.995	144-148	144-148	222-225	438-450	1240-1300	145.01	144.39	144-144.3
Rx Range (MHz)(3)	118-171	216-229	400-470	40-60(1)	118-174	216-279.995	350-511.995	136-174	118-174	222-225	400-470	1240-1300	145.01	144.39	144-144.3
Aircraft Rx	Yes	N/A	N/A	N/A	Yes	No	No	No	No	No	Yes	No	No	No	No
Power Output	60/15/5W	30/15/5W	35/10/5W	20/1W	50/10/5W	25/10/5W	35/10/5W	50/10/5W	50/10/5W	25/10/5W	35/10/5W	10W	5W	5W	7W SSB
TTP Microphone	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No
Tone Encode	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No
Tone Decode	Yes/DCS	Yes/DCS	Yes/DCS	EJ-20U	Yes	Yes	Yes	Yes	TSU-8	KQT-8	TSU-8	KQT-8	No	No	No
Memories	80	80	80	100	100	100	100	113	62	20	62	20	0	0	0
Alphanumeric	No	No	No	No	Yes	Yes	Yes	Yes	Yes	No	Yes	No	No	No	No
PC Programmable	Yes	Yes	Yes	N/A	No	No	No	Yes	No	No	No	No	No	No	No
13.8V DC@	12A	8A	10A	5A	11A	8A	10A	12A	11A	6.5A	10A	6A	>1A	>1A	1.2A
Antenna Conn	SO-239	SO-239	SO-239	SO-239	SO-239	SO239	SO239	SO-239	SO-239	SO-239	SO-239	Type-N	SO-239	SO-239	SO-239
Size (h/w/d, in.)	1.5/5.5/6.5	1.5/5.5/6.3	1.5/5.5/6.3	1.6/5.5/4.5	1.6/5.6/6.9	1.6/5.6/6.9	1.6/5.6/6.9	1.6/5.5/7.1	1.6/5.5/6.3	1.7/5.5/6.6	1.7/5.5/6.6	1.6/5.5/6.3	1.5/5/5	1.5/5/5	2.5/6.5/6
Weight (lbs.)	2.65	2.65	2.65	1.5	2.3	2.3	2.3	2.5	2.2	2.65	2.2	2.4	0.8	0.8	2

Manufacturer	MFJ	MFJ	YAESU	YAESU	YAESU
Model	9406X	9410X	FT-1500M	FT-2600M	FT-3000M
Band	6 meters	10 meters	2 meters	2 meters	2 meters
TX Range (MHz)	50-50.3	28.3-28.6	144-148	144-148	144-148
Rx Range (MHz)(3)	50-50.3	28.3-28.6	137-174	136-174	110-180, 300-520, 800-999
Aircraft Rx	No	No	No	No	Yes
Power Output	10W SSB	20W SSB	50/25/10/5W	60W	70/50/25/10W
TTP Microphone	No	No	Yes	Yes	Yes
Tone Encode	No	No	Yes	Yes	Yes
Tone Decode	No	No	Yes	Yes/DCS	FTS-17A
Memories	0	0	130	60	81
Alphanumeric	No	No	Yes	Yes	Yes
PC Programmable	No	No	Yes	Yes	Yes
13.8V DC@	1.2A	2A	8A	10A	15A
Antenna Conn	SO-239	SO-239	SO-239	SO-239	SO-239
Size (h/w/d, in.)	2.5/6.5/6	2.5/6.5/6	1.4/5/5	1.6/6.3/6.3	1.5/5.5/7
Weight (lbs.)	2	2	2.2	2.9	2.75

* Remotable control head
(1) Requires keyboard modification
(2) Expanded memory requires optional EJ-19U
(3) 2 Piece configuration only
(4) 2M/220MHz Transceiver
(5) All models are Cellular Blocked
(6) AM aircraft receive mode
(7) Does not include projections (knobs, antenna jacks, etc.)
(8) Manufactuer only guarantees specs within the ham bands
(9) Requires internal modification (available on request)
(10) There are gaps in non-voice or data portions in certain bands
(11) Control head separate from body
All radios are cell blocked

FREE ITEMS included with some radios.
See Price Guide for details.

DUAL BAND MOBILE TRANSCEIVERS

Manufacturer	ALINCO	ICOM*	ICOM(11)	KENWOOD(11)	KENWOOD*	KENWOOD*	KENWOOD	KENWOOD*	RANGER	RANGER	YAESU	YAESU*
Model	DR-605TQ	IC-207H	IC-2800H	TM-D700A	TM-G707A	TM-V7A	TM-642AD(4)	TM-742AD	RCI2950DX	RCI2970DX	FT-7100M	FT-90R
Tx Range(5,8)	144-148 430-450	144-148 440-450	144-148 430-450	144-148 438-450	144-148 438-450	144-148 438-450	144-148 220-225	144-148 438-450	24.8-24.99 28-29.6999	24.8-24.99 28-29.6999	144-148 430-450	144-148 430-450
Rx Range (MHz)(5,8)	136-174 420-470	118-174(6) 440-450	118-174(6) 430-450	118-470 (A band)(10) 136-175, 300-524 800-1300 (B band)(10)	118-174 410-524(6)	118-174 410-470(6)	118-174 213-235(6)	118-174 410-470(6)	24.8-24.99 28-29.6999	24.8-24.99 28-29.6999	108-137 (AM) 137-180, 320-480 810-999.99	100-230 300-530 810-1000
Single or Dual Rx	Dual	Single	Dual	Dual	Single	Dual	Dual	Dual	Single	Single	Dual	Single
Power (2M) Power (440MHz)	50/5W 35/5W	50/20/10/5W 35/20/10/5W	50/20/10/5W 35/20/10/5W	50/10/5W 35/10/5W	50/10/5W 35/10/5W	50/10/5W 35/10/5W	50/10/5W 25/10/5W	50/10/5W 35/10/5W	25W SSB 10W CW/FM/AM	150W SSB 50W CW/FM/AM	50/20/10/5W 35/20/10/5W	50/20/10/5W 35/20/10W
Memories	100	182	232	200	180	280	101	101	10	10	262	186
Tone Encode	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes
Tone Decode	Yes	Yes	Yes	Yes	Yes	Yes	Optional TSU-7	Optional TSU-7	No	No	Yes	DCS
Duplexer	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No	No	Yes	Yes
Cross-Band Rpt.	Yes	No	Yes	Yes	No	Yes	Yes(9)	Yes(9)	No	No	No	No
Alphanumeric	No	No	Yes	Yes	Yes	Yes	No	No	No	No	Yes	Yes
PC Programmable	No	Yes	Yes	Yes	Yes	Yes	No	No	No	No	No	Yes
9600b Compatible	Yes	Yes	Yes	Yes	Yes	Yes	Yes(9)	Yes(9)	No	No	Yes	Yes
Separateable	No	Yes	Yes(3)	Yes(3)	Yes	Yes	Yes	Yes	No	No	Yes	Yes
Height (in.) (Head) Width (in.) Depth (in)(7) Weight (lbs)	1.6 5.5 6.9 2.4	1.6 5.5 7.3 2.6	1.6 (2.8) 5.5 (5.5) 6.5 (1.3) 2.5 (0.6)	1.6 (2.4) 5.5 (5.5) 7.7 (1.3) 2.6 (6.3)	1.6 5.5 7.4 2.7	1.6 5.5 7.4 2.7	1.9 5.9 6.9 3.9	1.9 5.9 6.9 3.9	2.375 7.75 10.75 4.2	3.875 7.75 9.25 7.4	1.9 5.8 6.9 2.2	1.2 3.9 5.4 1.4

uniden

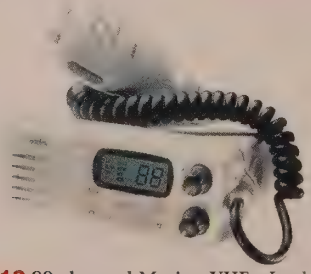
MARINE

HH-940P Marine VHF Handheld All US, international, Canadian and 10 weather channels • Programmable memory • All channel scan • Instant channel 16 and 9 • Triple watch • Weather alert • Electronic touch controls • Super twist backlit LCD • 1W • Keypad lockout • Battery charge indicator • Waterproof/submersible • Rechargeable NiCad battery, belt clip, wrist strap, drop-in charger • 2.5"w x 1.25"d x 4.813"h, 8.8 oz **$149.99**

HH-955 Marine VHF Handheld • All US, international and Canadian marine channels, plus 10 weather channels • Memory scan • Backlit LCD display • Triple watch • Instant Channel 16 and 9 • Weather alert • 5W/1W • Key-pad lockout • Battery charge indicator • Water-tight • Akaline or rechargable NiCad battery capability, requires 9 "AA" batteries (not supplied) • AC adapter, wrist strap and belt clip • 2.5"w x 1.75"d x 6.5"h, 19.5 oz **$99.99**

HH-985 Marine VHF Handheld All US, international, Canadian and 10 weather with S.A.M.E. • All/selectable channel scan • Instant channel 16 and 9 • Triple watch • Electronic touch controls • 5W/1W • Battery charge indicator • Water-tight • Rechargeable NiCad battery, secure latch belt clip, wrist strap, drop-in battery capability (AA's not supplied) • 2.5"w x 1.5" x 5.25"h, 8.8 oz **$159.99**

MC-535 Marine VHF Radio All USA and International, 10 weather, 80 marine channels • Instant channel 16 • Memory scan • Dual watch • LED channel display • 25/1W • Weather resistant • External speaker jack • 12 VDC @ 5A • 6.125"w x 7.563"d x 2.188"h, 2.4 lbs..... Closeout **$99.99**



MC-1010 80 channel Marine VHF • Looks similar to the MC-1020 • All USA, International and 10 weather channels • Ultra-compact • Triple watch feature • Memory/weather scan • 25/1W output • External speaker jack • 12V DC @ 4.5A • 6.125"w x 4.188"d x 2.125"h, 1 lb. 12 oz.... Closeout **$129.99**

MC-1020 80 channel Marine VHF • All USA, International and 10 weather channels • Ultra compact • Quik Command™ mic • Touch channel 16 and 19 • Memory scan • Weather scan and alert • 25/1W • Public address • External speaker jack • 6.125"w x 4.188"d x 2.125"h, 1 lb. 12 oz.... Closeout **$139.99**

ICOM

MARINE

M-710 SSB Marine Transceivers Rugged, 150W SSB Transceiver, 1136 channels with 160 user-programmable memories, PC programmable, alpha numeric readout on large LCD.

M-710 (21) General version without 2182kHz alarm, marine bands only ..... **Special Order $1399.99**

M-710-05 (22) Open version, covers 1.6 to 27.5 MHz, has 2182kHz alarm. **Special Order $1599.99**

IC-M45AW VHF 25W Marine Transceiver Water-resistant gaskets, including mic • Durable, one-piece aluminum diecast chassis • Large backlit display • 'Tag' scan system adds/deletes channels at switch push • 'Smart' mic changes channels or selects power without using panel • Dual/tri-watch monitors channel 16 while operating another • All international, US channels and 10 weather channels w/alert • Instant access to ch. 16 and call channel • Low battery indicator • 0.79"h x 2.36"w x 5.5"d... **$179.99**

IC-M3A Mini Handheld Marine VHF Radio *(left)* All U.S., International and 10 weather channels with alert • Independent channel 16 • Full function and priority scanner • Dual/tri-watch monitors channel 16 while operating another • 1W/5W • Backlit display • Water resistant • Includes 6 NiCads and wall charger • 2.25"w x 5.5"h x 1.75"d, 14.4 oz **$159.99**

IC-M1V Marine Handheld *(right)* All USA, Canadian, International and weather channels with alert • Normal and priority scan • "Tag" scan system • 5W • Dual / tri-watch • PC programmable • Alphanumeric LCD • Waterproof • 1400mAh lithium-ion battery • 2.1"w x 5.5"h x 1.18"d, 9.9 oz.... **$249.99**

AIRCRAFT

A-22 VHF Air Band Transceiver Covers (COM) 118.-136.975, (NAV) 108-117.95 MHz and memory channels Programmed scan, memory scan and lock • 5W output • Instant 121.5MHz • NAV features: 200 channel VOR nav with CDI, radial heading TO/FROM VOR, auto bearing set • Semi-duplex, combines VOR/COM operation • Includes Ni-cad rechargeable battery and wall charger • 2.5"w x 7.75"h x 1.5"d, 1.4 lbs **$399.99**

IC-M402W02 Marine VHF Radio All U.S., Canadian, International and 10 WX channels with alert • Normal/priority scanning • Dual/tri-watch • Large 2-digit LCD with scrolling channels • 4-level backlighting • Key illumination • DSC capability • Built-in SC-101 selective calling - store 30 IDs and incoming messages • GPS repeater (w/GPS unit) • "Tag" scan • 25W/1W • Waterproof • 6"w x 2.6"h x 5.5"d, 2 lbs **$219.99**

KENWOOD

MARINE

TKM-707 SSB Marine Transceiver A high-performance unit designed to meet the stringent demands of marine operation. Utilizes a heavy duty rustproof aluminum chassis and the highest quality parts to maximize performance • 150W RF output power • 2 MHz-23MHz Marine operation with 500kHz-30MHz general coverage receiver • 198 memory channels • Multi-scanning • 2182kHz emergency alarm built-in • Optional tuner..... **Special Order $1249.99**

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YAESU

AIRCRAFT

VXA-120 Aviator Pro II 4W • Direct freq. entry • 3-way display titling • Internal sidetone • 150 memories • 10 NOAA channels • Auto active weather channel scan • Auto Noise Limiter • Priority dual watch • Battery saver • PC programmable • MIL-STD 810 approved • NiCad batt., headset adapter, belt clip, antenna **$259.99**

VXA-200/16-SU Aviator Pilot II Offering communications, navigation indicator and safety aid in one handheld. • AM: 118.000-136.975 (COM band) tx • AM/FM: 108.00-117.975 (NAV band), 118.000-136.975 (COM band) rx • 5W/1.5W with supplied battery • 150 memories • Direct freq. entry • NOAA weather receive (U.S. only) • NAV band VOR navigation display • One-touch emergency • ANL • Skip scan • Split channel • Temper-ature readout • Barometric pressure, altitude and density altitude • MIL-STD 810 • JIS-4 water resistant • External DC input • Helical antenna, rechargable NiCad battery pack (7.2V, 700 mAH), overnight charger, belt clip, headset cable and manual • 2.02"w x 4.3"h x 1.18"d, 12.2 oz **$429.99**

MFJ ENTERPRISES, INC.

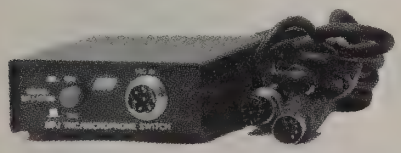
1270C TAPR TNC-2 Clone Interfaces computer with RS-232 serial port and terminal program for VHF/UHF, OSCAR and other non-FM packet. Switchable HF/VHF modems. EasyMail™ personal mailbox, WeFAX. KISS interface for TCP/IP, 256K EPROM & 32K RAM. AX.25/Level 2-V2 software. Comes with interface cable, serial port connector and AC adapter. 12 VDC. 9½" x 7½" x1½" **$119.99**

1278B Multi-mode Data Controller 10 modes: PACTOR, 16-level FAX, color, SSTV, PACKET, AMTOR, RTTY, ASCII, CW Navtex & memory keyer. Enhanced mailbox • 32K RAM • 16-gray level modem • 20 LED tune indicator • MARS mode • Internal modem header • 10 program message buffers • Dual radio ports • KISS interface • Host mode • Threshold control • RS-232/TTL ports • 12 VDC • 9½"w x 9½"d x1½"h **$279.99**

1278B/DSP The 1278B w/DSP filter **$359.99**

780 DSP Board Plug-in "brick wall" DSP data filter for MFJ-1278B **$89.99**

781 DSP for all TNCs This separate unit gives your Kantronics, Timewave, etc TNC Digital Signal Processing power **$119.99**



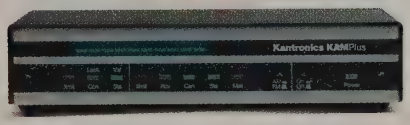
1272 TNC Switch Pushbutton selection for voice or digital. You specify the radio and TNC connection (multiple models available) .....(ea.) **$39.99**

8621 2 meter Packet Data Radio High-performance thru 9600 baud. Plug in TNC cable*, your antenna and power – you're ready for packet. Crystal control on 145.01MHz, 5W output. Requires 12 VDC @ 1A. 5"w x 5½"d x 1½"h **$139.99**

8621X2 Dedicated VHF Data Radio for APRS Automatic Packet Reporting System transceiver. Ready to go on 144.39MHz **$149.99**

*See Price Guide for pre-wired 8621-to-TNC cables. Crystals for other packet channels may be ordered from MFJ by calling 1-800-647-1800.

Kantronics



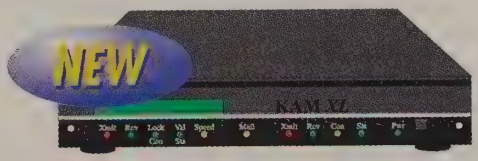
MULTI-MODE DATA CONTROLLERS

KPC-3 Plus/128 1200 bps • Packet, GPS/APRS, Host, KISS and WEFAX modes, use with EMWIN • Personal Mailbox (PBS) now supports multiple calls • Remote access, sensing and control with two A/D and two control lines • PBS 100k, expandable with optional 512k RAM **$186.99**

9612 Plus/128 1200 port and second port of 4800–38,400 bps • Most modes/capabilities of the KPC-3 Plus and POCSAG (paging) • Unique design allows the addition of another port, high or low speed • Remote access, sensing and control capability • Telemetry transmission capability..... **$369.99**

Hostmaster II+ Packet Software A great program to combine with the KAM, KPC-3plus/128 and older TNC's (not for KAM 98 or KAM XL). The program uses split screens, allows for packet and non-packet operations (with KAM) simultaneously and cuts down dramatically on the use of keyboard commands to your packet unit..... **$89.99**

KAM 98 Single port multimode TNC for HF and VHF use • Packet, GPS/APRS, Host, KISS, WEFAX, CW, RTTY, AMTOR, PACTOR, G-TOR®, Free signal detection for HF email, A/D inputs/TTL outputs • HC11 for more processing power to accommodate future upgrades • Wider range of speeds; use 1200 bps packet on 10 meters **$399.99**



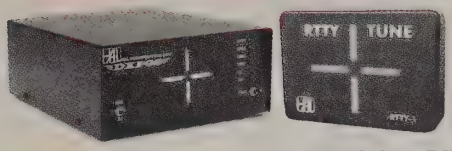
KAM XL Multi-Mode DSP Controller Kantronics third generation multimode TNC, a state-of-the-art design giving operations on HF, VHF, and UHF, while supporting DSP modems and popular new modes of operation • Packet 300 or 1200bps • G-TOR • Pactor I • AMTOR ARQ (FEC, SELFEC, CCIR 476 & 625) • PSK31 • RTTY • NAVTEX/AMTEX • ASCII • WEFAX • CW • Dual Port Mailbox • Remote SYSOP Access • GPS NMEA-0183 Compatible • Kantronics Host Mode • KISS **$399.99**

AEA TIMEWAVE TECHNOLOGY INC.

PK-96/100K 9600/1200 packet TNC 9600 and 1200 bps packet-ready • GPS firmware standard • Remotely program • GPS commands • Stand-alone tracking hardware HDLC for accuracy • True DCD to hear weak signals • Gateway as a node • TheNet X-1J node firmware option available • Full MailDrop facility • PC PackRatt Lite™ terminal control and APRS™ software included • AEA host mode • Advanced command set • Identify TCP/IP, TheNet and NetRom • Separate external TX for 9600/1200 bps adjustments • External reset • Windows™ and MacIntosh™ program available • Requires 12V DC • 6.25"w x 7.5"d x 1.375"h, 1.25 lbs. 128K RAM..... **$199.99**

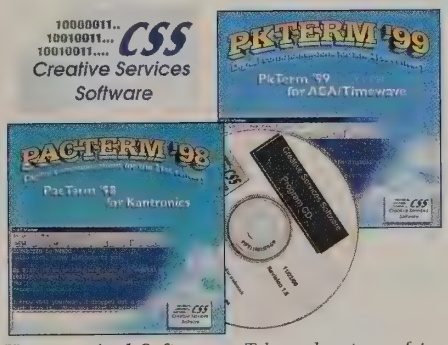
HAL COMMUNICATIONS CORP.

www.halcomm.com



DXP-38 Multimode HF Modem Stand-alone DSP modem providing excellent performance on RTTY, CLOVER, ASCII, AMTOR and P-Mode. DOS and Windows (95, 98 and NT 4.0) software are included. Uses the same serial I/O commands as, and will operate with any 3rd-party software written for the DSP-4100. 12V DC @ 0.6A. 3" x 7⅛" x 10"w..... **$395.99**

RTTY-1 Tuning Indicator EZ to use, very accurate. works with any FSK radio modem. Crossed LED bars show correct tuning for FSK modes including Baudot Teletype (RTTY), ASCII Teletype, AMTOR, SITOR, P-Mode, HF Packet Radio. Filters: 2125 Hz (Mark), 2295 Hz (Space) 5.5"w x 3.75"h x 1.25"d, 0.5 lb. Requires +9V-18V DC @ 160 ma **$99.99**



Host terminal Software – Takes advantage of true multitasking capabilities of Windows 95, 98, ME, NT and 2000. Release 1.5 with PSK-31 support.

PacTerm 98 For Kantronics™ TNCs..... **$79.99**

PK-Term 99 For Timewave and AEA TNCs (PK-12/96/232). Support for PK-232/PSK.... **$79.99**

PacComm Packet Radio Systems, Inc.

www.paccomm.com

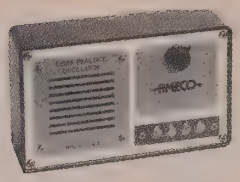
Pico 128K Miniature TNC *(bottom right)* Z-181 high integration MPU with one meg address space • Online help • Personal message system • APRS • Terminal programs for DOS and Windows • Open squelch DCD circuit included • Optional internal GPS receiver and slide-on battery pack. 1"h x 2.5"w x 3.5"d • Standard model with 128K RAM .. **$159.99**

Pico Dual 128K Dual Serial Port Model Adds hardware clock and second serial port for GPS or weather station to the standard model..... **$209.99**

Tiny–2 MK-2 Multi-Purpose Basic TNC *(top)* 32K RAM • TNC-2 EPROM compatible WA8DED host mode • KISS mode for satellite and TCP/IP Telemetry via RS-232 or TTL port • Disconnect header • Packet communication for a weather node • 45ma. draw • 5"h x 7"d 1.375"h **$159.99**

Spirit-2 High Performance Packet Controller *(bottom left)* Configures by setting jumpers and installing optional logic devices **$249.99**

HandiPacket Packet controller For portable or mobile operation • Loaded with features • Built-in 10-hr battery pack • 1.25"h x 2.5"w x 4"d. **$229.99**



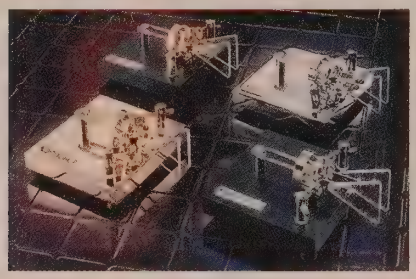
AMECO

Combination Code Practice Oscillator and CW Monitor Volume control, 3" speaker, & headphone terminals. Requires a code key and a 9V battery **OCM-2K** *Kit* **$19.99** **OCM-2W** *Wired* **$24.99**

K-1 *(left)* Low-cost general purpose key w/phenolic base, adjustable tension & contact spacing. **$10.95**

K-4 *(right)* Deluxe high quality key. Polished brass base, shorting bar **$16.95**

BENCHER, INC.



AFFORDABLE STANDARD

for CW operators world-wide

IAMBIC & SINGLE LEVEL PADDLES

BY-1 Black base **$99.99**
BY-2 Chrome **$119.99**
BY-3 Gold **$279.99**
BY-4 Black and gold **$169.99**

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LOGIKEY

IDIOM Press

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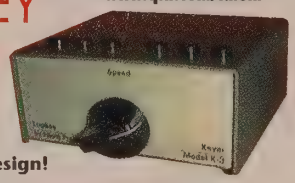


Full featured version of the famous Super CMOS III keyer design!

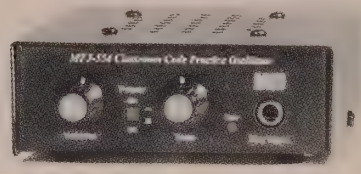
K-3 Non-volatile mem. • 6 editable messages, 1,530 characters • Messages can include programmed functions like automatic contest numbers, speed changes and pauses • Message can allow paddle inserted text & loop for continuous replay • Linear speed control – 5-60 WPM • Adjustable weighting and monitor tone • Tune function • Auto character spacing if desired • Can emulate others, including Curtis "A" timing • Ultra Speed Mode for messages up to 99 WPM • Contest serial numbers 001-9999, with push button decrement • Beacon capability • Full compensation for QSK rig timing • Keys solid-state or grid-blocked tube rigs • 12V DC, < 0.1 amp • 4.25"w x 2.25"h x 4.75"d **$129.99**

HK-3 **Hook-up kit for the K3** Includes Paddle-to-Keyer cordset; RCA-to-RCA keyer output cable and 2.5 mm DC power plug cordset for 12V **$10.99**

MFJ ENTERPRISES, INC.

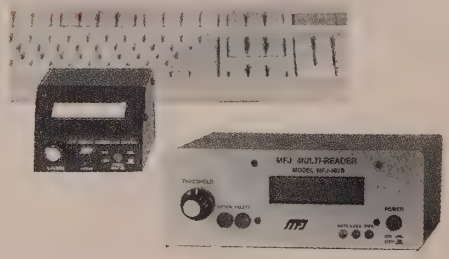
FOR LEARNING/PRACTICING CODE

414 **Professional Classroom Tutor** Features include LCD readout, printer port and audio tape recording output. Build and save three custom sets (16 characters each) for extra practice. Or combine these to give you 48 characters for using the KOCH method. Customize random words for practice, too. Use with 144/440MHz FM HT or HF transceiver for on-air code practice. VECs can give up to 16 exams. Full-featured memory keyer - has 1000 character memory, semi/auto modes, iambic A/B, reverse paddle, change speed and tone on-the-fly. Practice sending into the MFJ-414 with iambic paddle or straight key. Use built-in or external speaker or headphones. Includes serial port cable and open-end patch cable. 12 VDC or 110 VAC. 8.5"w x 2.25"h x 6"d **$189.99**



554 **Code Practice Oscillator** Designed for classroom use and abuse with great sound that enhances learning of Morse code. Plenty of volume from a built-in 1W amp and 3" speaker. Volume control and adjustable tone control (400-1000Hz). On/off switch, power ON LED, 1/4" key jack, 3.5mm external speaker jack and DC input jack. Requires 12V DC. All-metal enclosure. 4.25" x 1.5"h x 5"d **$79.99**

550 Telegraph Key **$7.99**



AIDED CW SENDING/RECEIVING

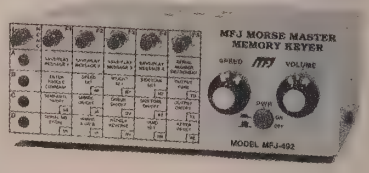
452 **Super CW Keyboard** *(left)* A stand alone CW keyboard that includes an RFI suppressed keyboard, a two line 16-character non-volatile LCD display. Send effortless CW by just typing the characters as you see what you are sending on the display. No computer to boot up, no program to load. • Speed: 5–100WPM • Weight: 5–95% • Sidetone: 300–3000 Hz sidetone • Serial Numbers (0–9999) • Has buffer and memory full audible indicators. Keys solid-state and tube-type rigs. Requires 12VDC or 110 VAC with MFJ-1312B **$129.99**

462B **MultiReader™** *(right)* Supply this unit with audio from a receiver or transceiver; tune in CW, RTTY, ASCII or AMTOR (FEC) signals; and read the automatically decoded text directly from the 2-line, LCD display. • Copy most standard shifts and speeds in all modes • *AutoTrak™* feature helps track and decode high speed CW • 8K memory stores several pages • PLL modem technology digs out weak signals • Precision tuning indicator • Printer port • 6.25"w x 2.5"h x 6.25"d • Requires 12VDC or 110 VAC with MFJ-1312B **$169.99**

KEYERS

407D **Deluxe Electronic Keyer** Features dot-dash mem., self completing dots and dashes; jam-proof spacing. RF proof, instant start. Single squeeze, or straight key. Front panel controls: speed, weight, tone & volume, ON/OFF, tune, auto or semi-automatic. Selectable A or B-type iambic keying. Built-in speaker, uses 9V battery or MFJ-1312B AC adapter. 7"w x 2"h x 6"d **$69.99**

401D **Econo Electronic Keyer II** Similar to MFJ-407D but with external speed and volume controls, internal weight and tune controls. Uses 9V battery or MFJ 1312 AC adapter **$49.99**

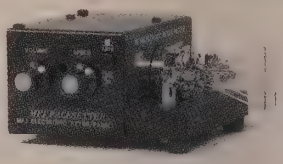


492 **Menu Driven Memory Keyer** No complex sequences. Save messages, enter iambic, semi-auto, handkey, message queue, paddle modes. Select iambic A/B, Morse trainer, store starting serial numbers. Holds 192 characters in 4 memories (expand able to 8K+ characters in 8 memories. Front panel speed (5–100 WPM) and volume control for sidetone speaker. Direct and grid block keying. 9V battery or 110V AC adapter. 6.5" x 2.5" x 6.25" . **$89.99**

493 All features of the 492, but with 32K memory IBM keyboard input, serial port for computer interface and QSO simulator **$129.99**

451 **Morse Keyboard** Stand-alone CW keyboard with 200 character type-ahead buffer, and two 100 character messages. Requires 12VDC or MFJ-1312B 110VAC adapter **$99.99**

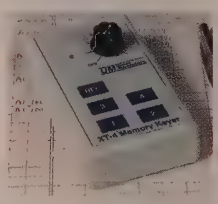
452 **Morse Keyboard** with 16 character LCD display. Comes with keyboard **$129.99**



422D **Keyer-Paddle Combo** Keyer unit installs on top of Bencher iambic paddle. Uses Curtis™ chip. 9 to 50 wpm. Adjustable weight and tone, dot-dash memory and sidetone. Semi-automatic and tune or auto modes. Keys grid block, cathode or solid state. Uses 9V battery or AC adapter. 4.125"x2.625"x5.5"d.. **$154.99**

422DX Keyer only **$79.99**

UM Unified Microsystems



XT-4 **CW Memory Keyer** Designed for QRP, Field Day, mobile CW county hunting - any portable operation. Also goes well in the shack with smaller rigs. 8-45 WPM. **Memories:** 4 with 100 Morse characters each positive keying output only via RCA phono jack output. 1/8" (3.5mm) stereo jack input. Paddle reverse for left or right-hand operation. Auto power save mode w/flashing LED engages after 30 min. of inactivity. Requires 9V alkaline battery **$69.99**

KC-4 Cable set for XT-4 ..... **$9.99**

AES
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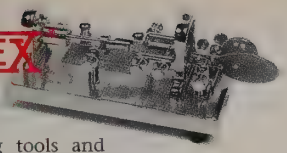
Browse Our Store On-Line at www.aesham.com

VIBROPLEX



The **Original "Bug"**, c. 1904, is still manufactured today using tools and dies similar to those used by its inventor, Horace G. Martin. Designed for code speeds of 20-50+ wpm.

110 Standard Painted base/chrome top.. **$169.99**

105 Deluxe Polished chrome base and top parts with fine jewel movements..... **$199.99**

100 Presentation Polished chrome base and 24K gold-plated base plate and chrome top parts, fine jewel movements **$269.99**

090 Gold Gold-plated base, chrome top . **$309.99**

Vibrokeyers: Single lever paddle *(left)* initiates automatic dots and dashes of an electronic keyer. Iambic model *(right)* allows automatic dot/dash insertion.

Vibrokeyer

120 Standard Black base, chrome parts.. **$149.99**

115 Deluxe Chrome base and top parts with jeweled movements..... **$184.99**

113 Gold 24K gold-plated base and top parts with jeweled movements **$279.99**

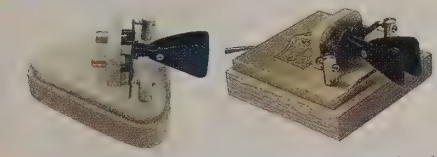
Iambic

135 Standard **$149.99**

130 Deluxe..... **$189.99**

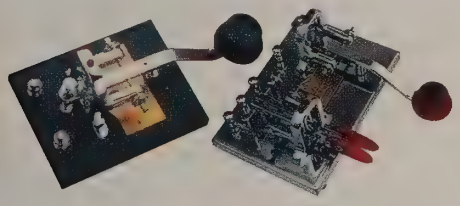
125 Presentation 24K gold-plated base and top parts with jeweled movements..... **$249.99**

123 Gold **$279.99**



145 Brass Racer Iambic *(left)* Solid brass Iambic paddle on a polished hardwood base..... **$139.99**

150 Square Brass Racer *(right)* Solid lacquered brass Iambic paddle mounted on a polished hardwood base. Magnetic action, no springs..... **$139.99**



Straight Keys *(left)* Unique mechanical action, unlike any straight key ever manufactured.

155 Standard **$149.99**

160 Deluxe **$189.99**

153 Gold..... **$279.99**

Deluxe Double Keys *(right)* Choice of iambic and straight or vibrokeyer and straight key. Double keys allow you to instantly switch from using an electronic keyer to the personal touch of a straight key.

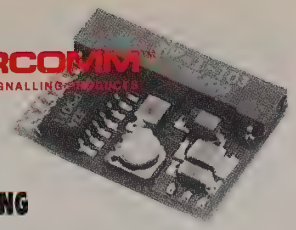
165 Straight key/Iambic..... **$329.99**

170 Straight key/Vibrokeyer **$329.99**

205 Venus Key Fully handcrafted with bright, chrome parts on a heavy 3.5" round, engraved chrome base. Magnetic tension with red paddles and attached cord. These keys will be custom built after special order • 2.4 lbs **$449.99**

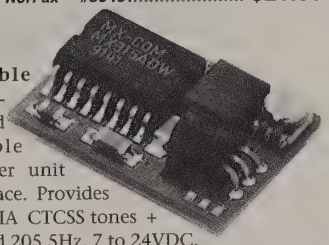
NORCOMM

TONE SIGNALLING PRODUCTS

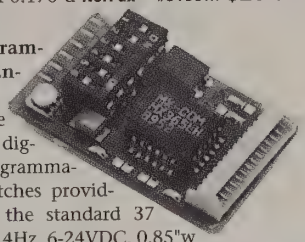


TONE SIGNALLING

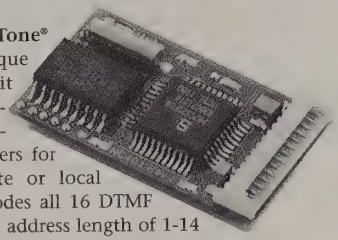
NC-101 Encoder Micro-mini. CTCSS encoder, field tunable to any of the CTCSS tone frequencies between 67Hz and 254Hz. 5 to 15VDC. 0.60"w x 0.80"l x 0.15"h *NorFax™ #5040*..... **$21.99**



NC-104 Programmable Encoder Sub-miniature field programmable CTCSS encoder unit for limited space. Provides standard 37 EIA CTCSS tones + 69.37, 97.4 and 205.5Hz. 7 to 24VDC. 0.625"w x 0.80"l x 0.170"d *NorFax™ #5150*... **$26.99**



NC-106 Programmable CTCSS Encoder/Decoder A sub-miniature crystal-controlled digital unit. Field programmable with dip switches providing any one of the standard 37 CTCSS tones + 97.4Hz. 6-24VDC. 0.85"w x 1.35"l x 0.28"h *NorFax™ #5230*..... **$62.99**



NC-401 Touch-Tone® Decoder Unique micro-mini unit combining 2 distinct multi-addressable decoders for control of remote or local applications. Decodes all 16 DTMF characters with an address length of 1-14 characters and features E²PROM memory for storage of both primary and secondary codes, input/output functions, deadbeat disable and user outputs, plus default reset. Programming easily performed by means of a conventional DTMF encoder. 6-24VDC. 0.80"w x 1.37"l x 0.23"h. *NorFax™ #5545* **$62.99**

NorFax™ auto fax retrieval system – 530-477-8403

Pipo® Communications

QUALITY DTMF ENCODERS

PK-1 12-digit pad • Steel keys • Sealed gold dome contacts • Self-contained • 8.5 to 16VDC • NO RFI • Simple 3-wire connection • Temp: -22 to +160 F • Adjustable level and timing • Front panel adjustable • Includes template, hardware and schematic • 2.65"h x 2"w x .045" **$71.99**

K-Series: features a built-in keying circuit and relay to automatically key. When any key is depressed, a relay closes for O–3 seconds, time is adjustable with a trimpot.

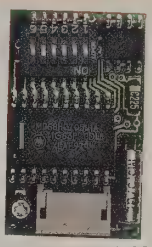
PK-1K 12-digit key pad **$78.99**

PK-2K 16-digit key pad **$83.99**

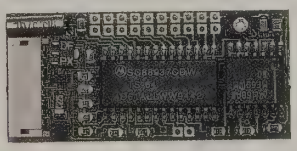
PK-2M M-Series a special encoder package for mounting PK-1/1K, PK-2/2K encoder to surfaces inaccessible from the rear. Consists of a frame which secures to the mounting surface with the encoder press-fitting into the frame..... **$76.99**

COMMUNICATIONS SPECIALISTS, INC

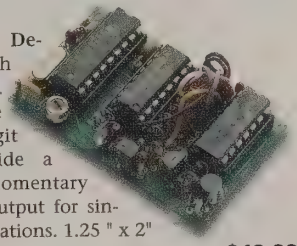
TONE ENCODERS & DECODERS



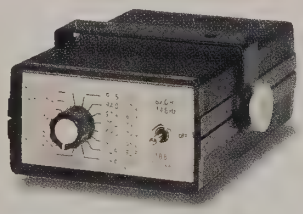
SS-64 Programmable CTCSS Encoder Super small for easy install in most HTs. Standard with 64 EIA tones between 33 and 254.1Hz. Individual tones dip-switch selectable 0.66" x 1.08" x 0.21", requires 6–28 VDC **$28.99**



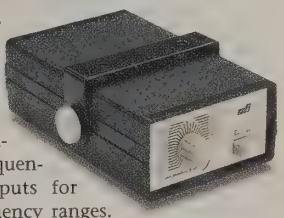
TS-64DS Field programmable CTCSS Encoder-Decoder DIP switch programmable for 64 EIA tones 33-254.1Hz. 1.25" x 2", 0.3", 6–28 VDC **$57.99**



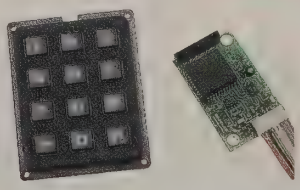
DTD-1 DTMF Decoder Small, high quality, low cost. Decodes any one of 5,040 4-digit codes to provide a latched or momentary open collector output for single function operations. 1.25 " x 2" x 0.4", requires 7–16 VDC..... **$49.99**



TE-32 Multi-tone Encoder Provides direct access from a front dial rotary switch to all EIA CTCSS tones from 67.0 to 203.5Hz, allowing users to access various repeaters. Great for mobile or test bench. 5.25" x 3.3" x 1.7", 6–30 VDC..... **$49.99**



TE-64 Multi-purpose Encoder Provides 64 tone frequencies. Includes 32 sub-audible, 19 burst-tone, 8 Touch-Tone® and 5 test frequencies. Separate outputs for high and low frequency ranges. 5.25" 3.3" x 1.7", 6–30 VDC..... Closeout **$49.99**



ID-8 Multi-Featured Automatic Morse ID'er Programmable via 12-button pad • Eight changeable messages • 200 characters total • CW speed: 1-99 wpm • ID interval timing: 1-99 min. • ID hold-off timing: 0-99 seconds • CW tone: 100-3000Hz • 6-20VDC • 1.85" x 1.12" x .0.35"..... **$69.99**

Many wiring diagrams for installing ComSpec units in older equipment are available at **www.com-spec.com.** Also posted is a list of documents that can be obtained from their *Fax-on Demand* system.

ASTRON CORPORATION

POWER SUPPLIES

The alternative to costly "matching" Supplies!

• 105–125V AC input, 13.8V DC output; internally adjustable from 11–15V • Electronic regulation with fold-back current limiting and crowbar overvoltage protection • Heavy-duty heat sink • 3-wire cord • 1-year Warranty • Made in U.S.A.

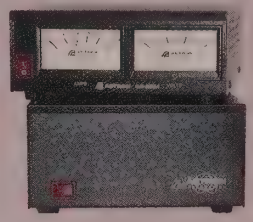
Separate volt and amp meters on RS-20M, 35M, 50M and 70M. Separate volt and amp meters, plus voltage adjustment (2–15V DC) on VS-20ML, VS-35M and VS-50M. RM-35M, RM-50M and RM-60M are rack mount models, plus separate meters.

Model	Cont. Amps	ICS Amps	Size (in.) H W D	Shipping weight	Price
RS-7A	5	7	3¾ x 6½ x 9	9	$59.99
RS-10A	7½	10	4 x 7½ x 10¾	11	69.99
RS-12A	9	12	4¼ x 8 x 10¾	13	79.99
RS-20A	16	20	5 x 9 x 10¾	18	99.99
RS-35A	25	35	5 x 11 x 11	27	149.99
RS-35A/220V	Same as RS-35A but 220V input				169.99
RS-50A	37	50	6 x 13¾ x 12	46	219.99
RS-70A	57	70	6 x 13¾ x 12	48	259.99
With separate Volt & Amp meters					
RS-20M	16	20	5 x 9 x 10¾	18	119.99
RS-35M	25	35	5 x 11 x 11	27	169.99
RS-50M	37	50	6 x 13¾ x 11	46	239.99
RS-70M	57	70	6 x 13¾ x 12	48	289.99
Adjustable output; separate Volt & Amp meters					
VS-20ML	16	20	5 x 9 x 10¾	20	139.99
VS-35M	25	35	5 x 11 x 11	29	189.99
VS-50M	37	50	6 x 13¾ x 11	46	259.99
Rack mount models; separate Volt & Amp meters					
RM-35M	25	35	5¼ x 19 x 12	38	249.99
RM-50M	37	50	5¼ x 19 x 12	50	279.99
RM-60M	50	55	7 x 19 x 12	60	359.99

POWER SUPPLIES WITH ADDED FEATURES

RS-4L Has a built-in cigarette lighter receptacle in the front panel. 13VDC @ 4A peak, 3 Amps continuous. 3½"h x 6½"w x 4¼"d, 6 lbs **$49.99**

RS-12S Power supply with built-in speaker. Rated 13VDC @ 12 Amps peak and 9 Amps continuous. 4½"h x 8"w x 9"d, 13 lbs..... **$89.99**



SWITCHING POWER SUPPLIES

SS-25 12V DC, rated 20 amps continuous, 25 amps ICS. 3"h x 7"w x 9½"d, 4.2 lbs..... **$109.99**

SS-25M Same as above, but also includes voltage and amp meters..... **$129.99**

SS-30 12V DC, rated 25 amps continuous, 30 amps ICS, 3¾"h x 7"w x 9½"d, 4½ lbs..... **$119.99**

SS-30M Same as above, but also includes voltage and amp meters..... **$139.99**

POWER INVERTERS

12/115 *(General Purpose)* Converts 12V DC to 115VAC @ 60 Hz. Provides convenient AC house current in your boat, car, truck, camper, etc. Powers your ham rig, small household appliances, TV, tools, radios and lights up to 200W continuous, with peaks up to 240W and overload protected. Note: This unit produces square wave output, not recommended for devices where high transients are not tolerable. 4½"h x 8"w x 9"d, 9 lbs..... **$69.99**

N2412-12 *(28V Aircraft)* Converts 22 to 32V DC input to 13.8V DC output @ 9 amps. Eliminates tapping into a 28V battery for 12V power..... **$49.99**

N2412-24 Same as the model above, but is rated at 16 amps..... **$79.99**

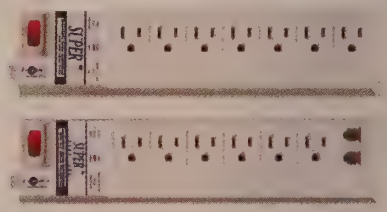
COMPACT INVERTERS

PowerVerter® Ultra These Low Cost DC to AC Inverters give you access to AC power wherever you need it. Harnessing the 12-volt battery power of your automobile, boat, RV or service truck, they let you use power tools at an out-of-the-way work site, household appliances at a campsite, or office equipment on the road.

Features: • Converts vehicle battery power to clean, safe and efficient AC power • Ultra compact design • Choice of 140w or 300w models • Plugs into vehicle cigarette-lighter socket (includes plug) • Electronic circuit protection • Low battery alarm and shutdown • Illuminated On/Off switch • Metal housing • Built-in high-speed cooling fan (PV-300)

PV-140 Offers 140W maximum continuous power and 200W surge capacity (peak power). This model has a modified sine wave and one AC receptacle. 6"l x 3"w x 1½"d, 1 lb. 4 oz..... **$42.99**

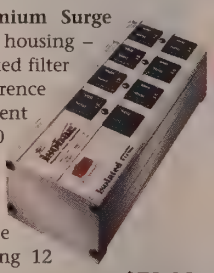
PV-300 This model is designed to deliver 300W maximum continuous power and 500W of surge capacity. It also offers a modified sine wave and two AC receptacles. 6"l x 4"w x 1¾"d, 2 lbs..... **$65.99**



SURGE SUPPRESSORS

SUPER-7 For spike suppression and noise filtering, 18,000 amp surge suppression, and RFI/ EMI filtering. Seven outlets, 7 foot cord, three diagnostic LED indicators..... **$19.99**

SUPER-7+TEL Same as above, but features fax/ modem protection for RJ-11 modular jacks **$29.99**



ISOBAR-8 ULTRA Premium Surge Protector Rugged all metal housing – won't break or burn • Isolated filter banks to eliminate interference between connected equipment • Massive 1,200 joule, 96,000 amp spike supression • Diagnostic alarm system indicates wiring faults, protection circuitry and power line status • 8 outlets, extra long 12 foot cord **$79.99**

AIM

SMALL POWER SUPPLIES

38-384 Light Duty DC Power Supply Input: 115V AC • Output: 13.8V DC regulated @ 4A • Front panel binding posts, • LED "ON" indicator, fuse protection • 7¾"d x 4¾"w x 3"h, 5½ lbs **$39.99**

38-305 AC Adapter *(left)* Provides multiple low-voltage DC to operate various battery powered equipment requiring 3, 4.5, 6, 7.5, 9 or 12V DC with a maximum current rating of 500ma. Multiple application plugs and 9V snaps fit most devices... **$9.99**

38-312 Regulated AC Adapter *(right)* Multi-voltage with multiple plugs and 9V snaps. Selectable 1.5, 3, 4.5, 6, 7.5, 9 or 12V DC regulated with a maximum current rating of 1200ma. to operate a wide range of battery operated devices..... **$29.99**

SEC-1223 Low Cost, Base Station Power Supply for HF, UHF & VHF Transceivers Switching mode design • 23 Amp rating • Current limiting • Short circuit protection • Overvoltage protection • Anodized black chassis and powder coat wrinkle black steel cover • Input: 110-10VAC, 200-240VAC • 4.9A input current • 13.8VDC output voltage • 23 Amps output current (24 max.) • 3-year warranty • 7.2" x 8.7" x 2.2", 33.3 lbs..... **$89.99**

DIAMOND ANTENNA

GZV-4000 Switching Mode DC Power Supply with Built-in Speaker 120V AC input • Variable output: 5–15V DC with center detent at 13.5V DC • 40 amps continuous rating, 100% duty cycle • Over temperature, overload, short-circuit protection with current foldback at approximately 42 amps • Overload indicator • Selectable monitoring of voltage and current • DC terminals on rear • Cigarette lighter jack on front • Filtered AC line • 8¼" x 13" x 4½", 8 lbs **$179.99**

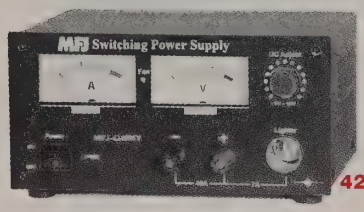
MFJ Switching Power Supplies

Power your HF transceiver, 2 meter/440 MHz mobile/base and accessories with these 25 or 45 Amp MFJ MightyLite™ Switching Power Supplies!

No RF hash . . . Super lightweight . . . Super small . . . Volt/Amp Meters* . . .

4125

4225MV



4245MV

MFJ's adjustable voltage switching power supplies do it all! You can power your HF transceiver or 2-Meter/440 MHz mobile or base and accessories with ease.

MFJ's *MightyLites*™ are so light and small you can carry them in the palm of your hand! Take them with you anywhere – **No** more picking up and hauling around heavy, bulky supplies.

MFJ's 25 Amp *MightyLite*™ weighs just 3.7 lbs. -- that's *5 times lighter* than an equivalent regular power supply. The 45 Amp'er is just 5.5 pounds!

No RF hash!

Some competing switching power supplies generate objectionable RF hash in your transmitted and received signal. But, these babies are clean!

Low Ripple and Highly Regulated

Less than 35 mV peak-to-peak ripple under 25 or 45 amp full load. Load regulation is better than 1.5% under full load.

Fully Protected

You won't burn up our power supplies! They are fully protected with Over Voltage and Over Current protection circuits.

Worldwide Versatility

MFJ *MightyLites*™ can be used anywhere in the world! They have switchable AC input voltage and work from 85 to 135 VAC or 170 to 260 VAC. Replaceable fuse.

MightyLitesTM . . . Mighty Features

MFJ *MightyLites*™ model 4225 and 4245MV feature a front-panel voltage control. Lets you vary output voltage from 9–15VDC, highly regulated.

You get an easy access front-panel with five-way binding posts for heavy duty use and a cigarette lighter socket for mobile accessories. 4245MV has two sets of quick-connects on the rear for accessories.

Large 3 inch dual meters are brightly illuminated to make it easy to monitor load voltage and current.

A whisper quiet internal fan efficiently cools your power supply for long life.

MFJ "No Matter What™ Warranty"

MFJ will repair or replace (at MFJ option) your *MightyLites™* supply for one full year.

Three models to choose from . . .

4125 (left) Basic, no metering. 25 Amps maximum or 22 Amps continuous. Measures 5½"w x 2½"h x 10¾"d.Weighs 3.5 pounds **$99.99**

4225MV (center) 25 Amps maximum or 22 Amps continuous. Weighs 3.7 pounds. Measures 5¾ x 4½ x 6 inches **$139.99**

4245MV (right) 45 Amps maximum or 40 Amps continuous. Weighs 5.5 pounds. Measures 7½ x 4¾ x 9 inches..... **$189.99**

*Not included with the 4125

MFJ 35/30 Amp Adjustable Regulated DC Power Supply

Massive 19.2 pound transformer . . . No RF hash . . . Adjustable 1 to 14 VDC . . .

MFJ's heavy duty conventional power supply is excellent for powering HF or 2 Meter/440 MHz transceiver/accessories.

A massive 19.2 pound transformer makes this power supply super heavy duty! It delivers 35 amps maximum and 30 amps continuous without even flexing its muscles. Plugs into any 110 VAC wall outlet.

It's highly regulated with load regulation better than 1%. Ripple voltage is less than 30 mV. No RF hash -- it's super clean!

Fully protected -- has over voltage protection, fold back short circuit protection and over-temperature protection.

You get front panel adjustable voltage from 1 to 14 VDC with a convenient detent set at 13.8 VDC. A pair of front-panel meters let you monitor voltage and current.

Three sets of output terminals include a pair of heavy duty five-way binding posts for HF/VHF radios, two pairs of quick-connects for accessories and a covered cigarette lighter socket for mobile accessories.

A front-panel fuse holder makes fuse replacement easy. Whisper quiet fan speed increases as load current increases -- keeps components cool. 9½"w x 6"h x 9¾"d.

The 4035MV is protected by MFJ's famous No Matter What™ one year limited warranty. MFJ will repair or replace (at MFJ option) your product for 1 full year.

4035MV $139.99

MFJ High Current Multiple DC Power Outlets

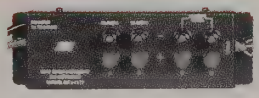
Power two HF/VHF transceivers and six or more accessories from your 12 VDC power supply

1118 (left) This is MFJ's most versatile and highest current *Deluxe Multiple DC Power Outlet*. Lets you power two HF and/or VHF transceivers and six or more accessories from your transceiver's main 12 VDC supply.

Two pairs of super heavy duty 30 amp 5-way binding posts connect your transceivers. Each pair is fused and RF bypassed. Handles 35 Amps total. Six pairs of heavy duty, RF bypassed 5-way binding posts let you power your accessories. They handle 15 Amps total, are protected by a master fuse and have an ON/OFF switch with "ON" LED indicator.

Built-in 0-25 VDC voltmeter. Six feet of super heavy duty eight gauge color-coded cable with ring tongue terminals. Binding posts are spaced for standard dual banana plugs. Heavy duty aluminum construction. 12½ x 2¾ x 2½ inches . **$74.99**

MFJ HF DC Power Outlet



1117 Similar to 1118 but powers up to 4 different radios at the same time. Two 35A single posts, one 35 amp dual post. Size: 8" x 2" x 3", fits anywhere at your operating position. No meter, power LED or on/off switch **$54.99**

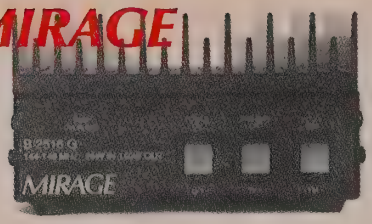
1116 (center) Similar to 1118. No 30 amp posts. Has "ON" LED and 0-25 VDC voltmeter. 15 amps total **$49.99**

1112 (right) Similar to 1116. No on/off switch, LED, meter or fuse **$34.99**

Each has MFJ's famous *No Matter What*™ one year limited warranty. MFJ will repair or replace (at MFJ's option) your high current multiple DC power outlet for 1 year.

We accept I.M.P.A.C.® Government Credit Cards

MIRAGE



VHF/UHF AMPLIFIERS

Add a MIRAGE amplifier to your rig for 30 to 600 watts of BRUTE POWER! Models for 6M through 70 cm – Base, Mobile, Repeater or ATV operation • 12V DC • FM (SSB/CW on some models) • Continuous duty • 20dB GaAsFET preamp • Overdrive and High-temperature protection • Remote control capability

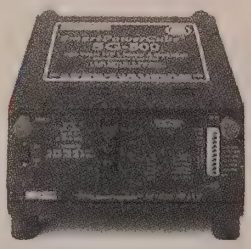
Model	MHz	Max Input	Max Output	Amps	Pre-amp	Price
A-1015G	50-52	1-15W	150W	23	yes	$349.99
B-34	144-148	8W	35W	4	no	69.99
B-34G	144-148	8W	35W	4	yes	89.99
B-215G	144-148	0.25-5W	150W	20	yes	339.99
B-1016G	144-148	0.2-15W	160W	25	yes	339.99
B-2518G	144-148	20-35W	160W	25	yes	269.99
B-2530G	144-148	10-35W	300W	48	yes	619.99
B-5018G	144-148	20-60W	160W	22	yes	269.99
B-5030G	144-148	0.5-50W	300W	48	yes	599.99
B-310G	144-148	0.25-8W	100W	15	yes	179.99
B-320G	144-148	2.5-50W	200W	25	yes	399.99
BD-35	144/440	1-7W	45/35W	7	no	149.99
C-22G	222-225	2W	20W	5	yes	154.99
C-211G	222-225	2W	110W	20	yes	299.99
C-1012G	222-225	10W	120W	25	yes	299.99
C-1022G	222-225	10W	220W	20*	yes	589.99
C-2512G	222-225	30W	120W	25	yes	289.99
C-2522G	222-225	30W	200W	42	yes	C/O 519.99
C-5012G	222-225	50W	120W	25	yes	C/O 259.99
C-5022G	222-225	50W	200W	42	yes	C/O 499.99
D-15N	425-450	2W	15W	3	no	169.99
D-26N	430-450	2W	60W	12	no	244.99
D-1010N	430-450	10W	100W	15	no	354.99
D-3010N	430-450	30W	100W	20	no	329.99
D-1010ATVN	430ATV	10W	100W	20	no	369.99

* at 28VDC N denotes Type-N connectors

RC-1 Remote Control Head For most Mirage amps. Controls: Power/preamp On/Off, SSB/FM mode switch. 18" cable. 1.25h" x 3.75"w x 2.25"d **$45.99**

RC-2 Remote Control Head Same as the RC-1 but works only with the Mirage B2518G and B5018G amplifiers **$45.99**

SGC



SG-500 (52-96) SmartPower Cube™ A fully automatic band switching, micro-processor-controlled, HF linear amplifier. Ideal for fixed, mobile, and marine operation. Nearly indestructible! Cast-aluminum enclosure, extra heavy duty heat sinks, powder coat finish and durable electronic components.

Microprocessor: Automatically adjusts amplifier input sensitivity; Monitors all parameters for faults (heat, VSWR, under-voltage, etc.) Auto selects the correct broadband filter. Operates unattended!

Frequency range: 1.6–24MHz • Power output: 500W PEP with 50-90W input • CW rating: 500W output for 10 min., or unlimited with optional fan installed • 10–18 VDC @ 40A average (SSB), 90A peak, or CW • 6"h x 12.25"d x 11.4"w, 21 lbs **$1169.99**

MIRAGE

DOCKING BOOSTERS

Slide your handheld into a Mirage docking booster and it instantly becomes a powerful mobile or base!

- Boost your mobile or base station levels, up to 50W
- Replace your HT battery
- Becomes a secure and convenient HT holder

Mirage docking boosters have selectable HT voltages that let you use most handhelds. Place it on your dashboard or desk, or use mounting bracket mount for security and conveniece with tilt. Requires 13.8 VDC.

B-24-G For 2m FM handhelds Up to 50W output with 0.5–8W input • 18dB GaAsFET preamp with on/off switch • LEDs show preamp on, on air, and transmit • 4.25"h x 3.35"w x 3.25"d • Choose adapter to fit your handheld* **$114.99**

BD-25 For 2M/440MHz FM HTs Up to 45W (2M) & 35W (440MHz) with 0.5-8W input • Full Duplex feature lets you simultaneously talk on one band and listen on the other with a compatible HT • Auto band selection • LEDs show band and power-on • Reverse polarity protection • 5.25"h x 3.25"w x 3.35"d • Choose adapter to fit your handheld* **$164.99**

** See Mirage in the Price Guide for HT adapters, and also a listing of Mirage repeater amplifiers.*

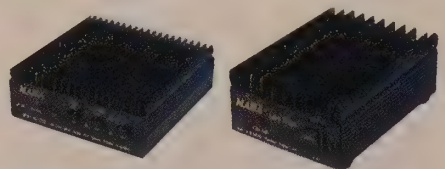
MAHA

DOCKING BOOSTERS

With the appropriate adapter, you can slide on and boost your ICOM, KENWOOD or YAESU handheld radio up to 50W. Forget about the battery pack, the booster will power the HT at 5W. Also works with ADI & RADIO SHACK HTX-202.

MH-A301 2m FM 5W in/50W out, 18dB GaAsFET preamplifier **$115.99**

MH-A302 Dual Bander (2m) 5W in/45W out; (440MHz) 5W in/35W out **$165.99**



HT AMPLIFIERS

MH-A101 2m FM, 5W in/35W out **$69.99**

MH-A102 2m FM/SSB, 5W in/35W out, 15dB GaAsFET preamplifier **$89.99**

MH-A103 2m FM/SSB, 5W in/50W out, 15dB GaAsFET preamplifier **$119.99**

MH-A104 2m FM/SSB, 5W in/100W out, 15dB GaAsFET preamp, adjustable **$229.99**

MH-A201 Dual Bander – 2m 5W in/45W out; 440MHz 5Win/35W out **$159.99**

TE SYSTEMS

RF POWER AMPLIFIERS

• Linear all-mode operation with automatic T/R or PTT switching and adjustable relay delay control. • 13.8V DC • SSB, FM or CW operation • Receive GaAs FET low-noise preamp with 18 dbm 3rd-order intercept point for superior weak signal reception and improved strong signal intermodulation rejection • Excellent electrical and mechanical construction integrity. All RF and DC cables attached out of sight on rear panel • Thermal shut-down protection.

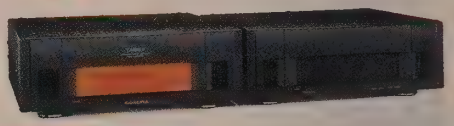
TE Model	Freq MHz	In (W)	Out (W)	Amps @13.8V	Preamp NF/Gain	Price
6-meters						
0510G	50-54	10	170	25	.7/15	$319.99
0552G	50-54	20-25	375	54	.7/15	486.99
2-meters						
1410G	144-148	5-10	160	27	.7/15	328.99
1412G	144-148	25-45	160	22	.7/15	286.99
1452G	144-148	10-25	350	52	7/15	525.99
3/4-meter						
2212G	222-225	25-45	130	16	.8/14	316.99
70 cm						
4412G	420-450	15-30	100	19	1.2/12	355.99
4452G	420-450	25	185	30	1.2/12	547.99

All models are 3"h x 10"w x 11"d, except 1410G, 2212G and 4412G which are 3"h x 6"w x 11"d. All models have UHF connectors except 4452G which has type-N.

ICOM

PW-1 HF + 50MHz Solid State Linear Amplifier Frequency range: 160-15m, 6m • Power output with 220V input): 1000 PEP SSB, 1000W CW/RTTY (100% duty cycle, QSK) • 100W drive • Built-in all band automatic antenna tuner • Automatic AC voltage selector and band change • Current, voltage, temperature, SWR, output power protectors • Wide range adjustable ALC allows use with almost any rig • Control head may be detached from main unit (shown) • Built-in 110/220VAC supply • 14"w x 10.5"h x 14.5"d, 56 lbs ..... Special **$4699.99**

YAESU

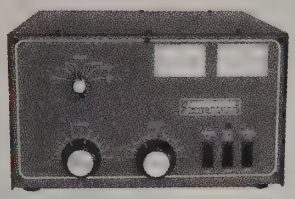


QUADRA HF + 50MHz Solid State Amplifier Frequency range: 160-15m, 6m • Power output: 1000W (6m: 500W) • 100W drive • 4 twin MOSFET PA modules • Dot matrix multi-function LCD • Two input and four output jacks for easy connection to station antenna • Built-in high-speed auto antenna tuner • Panoramic SWR display shows "before tuning" and "after tuning" SWR data • SWR protection • Automatic band switching with FT-1000, FT-1000MP, FT-1000MP MK V, and FT-920 • Two input voltages: 117VAC for 500W; 220V AC for 1000W • Separate VP-1000 power supply provides 48 VDC @ 48 amps • 6.25" x 5.375" x 16.25" (each), 59 lbs.... **$3999.99**

AMERITRON AMPLIFIERS

Ameritron AL-811 amplifiers... a world-wide reputation for legendary quality, flawless performance & proven reliability

AL-811H $749.99
AL-811 $599.99



HF Linear Amps with 811A Tubes

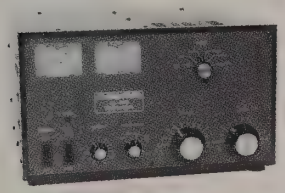
Only the Ameritron AL-811H gives you four fully neutralized 811A transmitting tubes. You get absolute stability and superb performance on higher bands that can't be matched by un-neutralized tubes. Delivers 800 watts PEP, 600 watts CW output

Ameritron mounts the 811A tubes vertically – not horizontally – prevents hot tube elements from sagging and shorting out. Others, using potentially damaging horizontal mounting, require special 811As to retard sagging/shorting.

A quiet, powerful computer grade blower draws in plenty of cool air. It pressurizes the cabinet and efficiently cools your 811A tubes. Our air flow is so quiet, you'll hardly know it's there – unlike noisy, poorly chosen blowers.

You also get efficient full size heavy-duty tank coils, full height. computer grade capacitors, heavy-duty high silicon core power transformer, slug tuned input coils, operate/standby switch, transmit LED, ALC, dual meters, QSK compatibility with optional QSK-5 plus more!

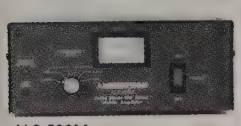
Model AL-811 uses three 811A tubes and delivers 600W PEP, 500W CW or 400W continuous output.



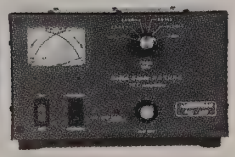
AL-80B $1199.99

Desktop Kilowatt Amplifier with 3-500ZG Graphite tube

Full kilowatt PEP output from a whisper quiet compact desktop linear. Only 8½"w x 14"w x 15½"d. Plugs into nearest 120 VAC outlet. Covers all bands 160-15 Meters. 1000 Watts out on SSB, 850 Watts out on CW, genuine Amperex 3-500ZG tube has graphite plate, nearly 70% efficiency, in-rush current protection, multi-voltage transformer.



ALS-500M



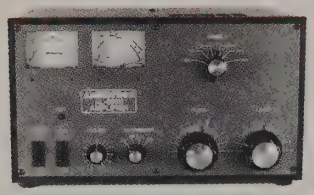
ALS-600

ALS-500M Mobile no tune Solid State mobile amp has 500 watts output and covers 1.5-22 MHz

Ideal mobile amplifier uses 13.8 Vdc mobile electrical system, very compact – only 3½ x 9 x 15 inches, extremely quiet, 500 W output, 1.5-22 MHz coverage, instant bandswitching, no tuning, no warm up, no tubes, SWR protected..... **$699.99**

ALS-600 No tune Solid State base amp includes heavy duty power supply, delivers 600 Watts output

No tuning, no fuss, no worries – just turn it on and operate. Includes AC power supply, 600 W output, continuous 1.5 to 22 MHz coverage, instant bandswitching, fully SWR protected, extremely quiet, very compact. Amp is 6"h x 9½"w x 12"d.. **$1129.99**



AL-800H $2299.99
AL-800 $1569.99

HF Linear Amps with the Eimac™3CX800A7

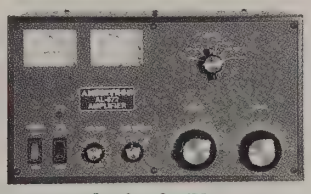
Ameritron's AL-800/H amplifiers cover 160-15 Meters including WARC bands. The AL-800 has a single Eimac® 3CX800A7 tube and produces 1250 Watts PEP. **Model AL-800H** has two 3CX800A7s giving 1500 watts plus.

Both amps have an adjustable slug tuned input circuit, grid protection, ALC control that is front panel adjustable, vernier reduction drives, heavy duty 32 lb. grain oriented silicone steel core transformers & high capacitance computer grade filter capacitors.

These amplifiers have multi-voltage operation (14 user slectable AC line voltage from 90-140; 200-250 VAC), quiet pressurized ventilation systems, dual illuminated Cross-Needle meters that read peak forward and reflected power, SWR, high voltage, grid current and plate current.

Vernier reduction drives make tuning adjustments smooth & easy. Ameritron's exclusive *Step-Start Inrush Protection*™ stops damage to your amplifier from inrush current. Amps feature an attractive Lexan front panel decal & superior, all metal construction – it's built to last! Ultra compact desktop size is perfect for your operating station. 8½"h x 16½"w x 14¾"d.

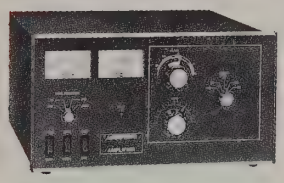
AL-572 $1299.99



Near Legal Limit™

New class of *Near Legal Limit*™ amplifier gives you 1300 Watt PEP SSB power output for about 65% of the price of full legal limit amps! Four rugged 572B tubes. Instant 3-second warm-up. Plugs into 120 VAC. Compact – 8½"h x 15½"w x 14½"d. Covers 160 to 15 meters, delivers 1000 watts CW output. Tuned input, instantaneous RF Bias, dynamic ALC, parasitic killer, inrush protection, two lighted Cross-Needle meters, multi-voltage transformer.

AMERITRON offers the best selection of legal limit amplifiers

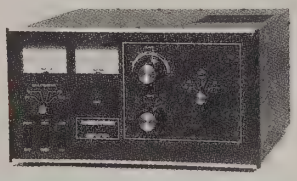


AL-1500 $2569.99

Ameritron's most powerful Linear... single 3CX-1500/8877

Herculean *Eimac*® 8877 ceramic tube. It's so powerful that 65 watts drive gives you the full legal output – and it's just loafing because the power supply is capable of 2500 Watts PEP.

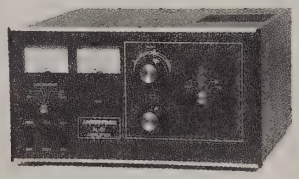
AL-1200 $2169.99



Single 3CX1200A7 linear Amp

Get ham radio's toughest tube with the Ameritron AL-1200 – the *Eimac*® 3CX1200A7. It has a 50 watt control grid dissipation. What makes Ameritrons stand out from other legal limit amplifiers? The answer: A super heavy duty power supply that loafs at full legal power – it can deliver the power of more than 2500 watts PEP two tone output for a half hour.

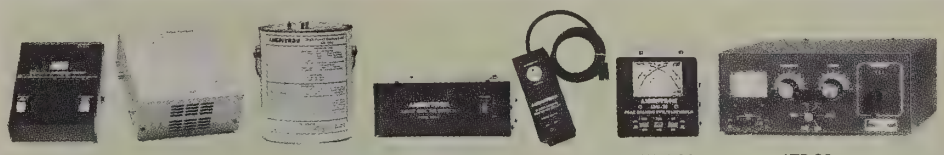
AL-82 $2069.99



Dual 3-500ZG linear

This linear gives you full legal output using a pair of 3-500s. Most competing linears using 3-500s can't give you 1500 Watts because their lightweight power supplies can't use these tubes to their full potential.

AMERITRON's legal limit amps are 18"h x 17"w x 10"d and weigh approximately 77 lbs. All use a Super Heavy Duty *Hypersil*® power transformer capable of 2500 WATTS!



ATP-100 ADL-2500 ADL-1500 QSK-5 ICP-120/240 AWM-30 ATR-30

AMERITRON ACCESSORIES

ATP-100 Tuning Pulser Safely tune amplifiers. Prevents overheating, tube damage, supply stress and component failure **$49.99**

ADL-2500 Fan cooled 2500 W dry dummy load 2500 Watts average power for 1 minute on, 10 off minutes of,f 300W continous. SWR <1.4:1. Quiet fan..... **$189.99**

ADL-1500 Dummy Load with container and oil Oil cooled, 50Ω load handles 1500W for 5 minutes. SWR<1.2:1 to 30MHz, low SWR to 400 MHz **$69.99**

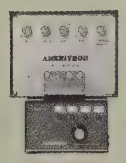
QSK-5 Pin diode transmit receive Switch Connects externally to most HF amps. Handles 2.5 kW PEP, 2 KW CW. 6X faster than vacuum relay **$329.99**

ICP-120/240 In-rush current protectors Stops power-up in-rush current. Absorbs momentary high-voltage spikes to 1 amp. ICP-120 for 110-120V; ICP-240 for 220-240V.....ea. **$79.99**

AWM-30 Precision SWR Wattmeter Gives true active peak and average readings. Lighted cross-needle meter. 3000/300 Watt ranges..... **$139.99**

ATR-30 *True Legal Limit* **Antenna Tuner** True high power even on 160M where most others fail. Edge wound, silver-plated *AirCore*™ inductor..... **$549.99**

RCS-8V Remote Coax Switch Replace 5 coax feedlines with a single coax. 1.2 SWR at 250 MHz. Useable to 450 MHz. 1 KW at 150 MHz.... **$139.99** **RCS-4** 4 position remote switch, wireless.... **$129.99**



RCS-4

ARB-702

ARB-702 Amp-to-radio interface Protects transceivers from damage by keying line transients, steady state current & excessive voltages. Specify for Icom, Kenwood, Yaesu or IC-706...ea. **$39.99**

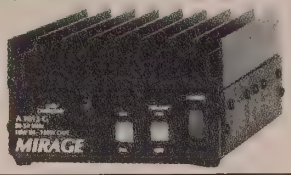
Order Toll Free:
1-800-558-0411
M-F 6 A.M. Pacific to 8:30 P.M. Eastern; Sat. 9 A.M. to 3 P.M.

MIRAGE

Turn your mobile, base or handheld into a Powerhouse and talk further, longer, clearer . . . All modes: FM, SSB, CW . . . GaAsFET preamp . . .

The MIRAGE B-5018-G gives you 160 Watts of brute power for 50 Watts input on all modes -- **FM, SSB or CW!**

B-5018G
$269.99



Power Curve – typical B-5016-G output power								
Watts Out	130	135	140	145	150	155	160	160+
Watts In	20	25	30	35	40	45	50	55

- Ideal for 20 to 60W 2M Mobile or Base units. Power Curve chart shows typical output power.
- Hear weak signals – the low noise figure (0.6dB) GaAsFET preamp has selectable 15 or 20 dB gain.
- B-5018G has legendary ruggedness.
- Heavy-duty heatsink spans entire length of cabinet and prevents overheating. Power transistors are protected by MIRAGE's Therm-O-Guard™.
- Fully protected from high VSWR and excessive input power. Has warning LED.
- Smooth adjustable internal Transmit/Receive switching and remote external keying.
- Draws 17-22 amps @ 13.8 VDC.
- Compact Size: 12 x 3 x 5-1/2 inches.

150-160W 2M Amplifiers with Preamps

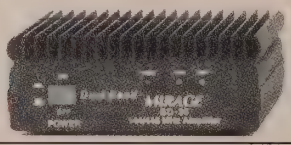
B-2518G For 10–35W Mobile or Base stations, 160W output with 25W input **$269.99**

B-1016G MIRAGE's *most popular* Dual Purpose HT or Mobile or Base amplifier. For 0.2-15W radios, 160W output with 10W input. **$339.99**

B-215G MIRAGE's *most popular* amplifier for 0.25 to 5W handhelds. 150W output with 2W input, 150W output with 3½W input. **$339.99**

144/440MHz Amp
45/35 Watt Dual Band

BD-35
$149.99

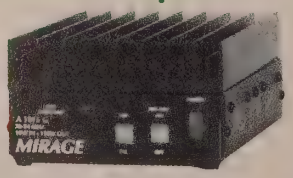


Power Curve – typical BD-35 output power								
Watts Out (2 Meters)	30	40	45	45+	45+	45+	45+	45+
Watts Out (440 MHz)	16	26	32	35+	35+	35+	35+	35+
Watts In	1	2	3	4	5	6	7	8

- Works with all FM handhelds up to 7W
- 45W output on 2M/35W on 440 MHz
- Auto Band Selection • Full Duplex Operation
- Single connector for dual band radios
- Reverse polarity protection
- Auto T/R Switch • "On Air" LEDs
- 5 x 1¾ x 5 inches • Mobile bracket

6 Meter 150W Amplifier

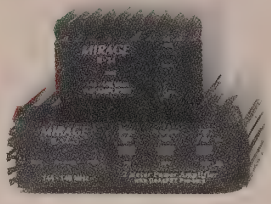
A-1015G
$349.99



FCC Type Accepted – The A-1015G is the world's most popular all mode 6M amplifier for 1 to 15W transceivers. Covers 50-52MHz, FM/SSB/CW modes. 150W output with 10W input. Built-in Low Noise GaAsFET receive preamplifier. Adjustable internal T/R switching and remote external keying.12"d x 3"h x 5.5"w, 5 lbs. 13.8 VDC @ 18-22 Amps.

35W for 2M HTs

B-34G
(bottom)
$89.99



- Works with 2M handhelds with up to 8W output
- 35W output • Modes: FM, SSB, CW
- 18 dB GaAsFET preamp • Reverse Polarity protection

B-34 (top) 35W, FM only, less preamplifier.....**$ 69.99**

100W for 2M HTs

B-310G
$179.99

Power Curve – typical B-310-G output power								
Watts Out	25	50	75	95	100	100	100+	100+
Watts In	1/4	1/2	1	2	4	6	7	8

- For all 2M handhelds .25 - 8W output
- All modes: FM, SSB, CW
- 15 dB GaAsFET preamp
- Reverse Polarity Protection/SWR Protection

Remote Control heads

RC-1 – Remote control of amp functions: Power and preamp On/Off, and FM/SSB mode select. Only 1.75" x 3.75" x 2.5". Comes with 18 ft. cable. **$45.99**

RC-2 for models B-2518G and B-5018G **$45.99**

More MIRAGE amps available – including models for 220MHz, 430-440MHz. Also, continuous duty FM/SSB/CW Repeater Amplifiers for 6, 2, 1-1/4 meters, 70 cm, 450 MHz & ATV.

See the Price Guide under MIRAGE

Low Noise GaAsFET preamps

- High gain Ultra Low Noise improves the reception of weak signals
- 15 to 22 dB gain with selectable gain level to prevent receiver overload and intermodulation
- Less than 0.8 dB Noise Figure
- Automatic TR RF switching up to 100W thru put
- In-Shack or Mast-Mount models
- Rugged die-cast enclosures.

In-Shack Models

KP-1/10M 28-30MHz; in-shack model.....**$129.99**
KP-1/6M 50-54MHz; in-shack model.....**$129.99**
KP-1/2M 144-148MHz; in-shack model.....**$129.99**
KP-1/220 220-225MHz; in-shack model **$129.99**
KP-1/440 430-450MHz; in-shack model **$129.99**

Mast Mount Models

KP-2/10M 28-30MHz; mast-mount.....C/O **$149.99**
KP-2/6M 50-54MHz; mast-mount.....**$179.99**
KP-2/2M 144-148MHz; mast-mount.....**$179.99**
KP-2/220 220-225MHz; mast-mount **$179.99**
KP-2/440 430-450MHz; mast-mount **$179.99**

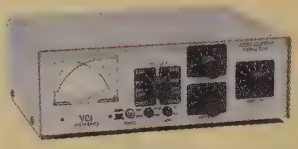
Power for your MIRAGE Amplifier

MFJ
Adjustable Regulated DC Power Supply
$139.99

4035MV Massive 19.2 pound transformer – Super Heavy duty! Voltage adjustable 0-15V, 35A maximum and 30A continuous. Volt & Amp meters. Fully regulated, fully overload protected. 110 VAC.

VECTRONICS

. . . the finest amateur radio products made!

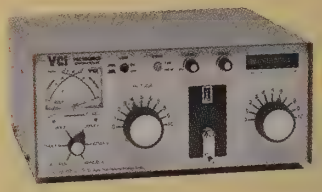


VC-300DLP
$149.99

World's most versatile 300 Watt Antenna Tuner

You'll get everything you've ever wanted: • precise inductance control that rivals roller inductors • the ability to match any real antenna • full 1.8-30 MHz coverage • peak reading backlit Cross-Needle Meter • 8-position antenna switch • built-in 50Ω dummy load • finest components around and world class quality.

Legal Limit Roller Inductor Antenna Tuner with SSB Digital Bar Graph



HFT-1500
$399.99

The HFT-1500 has three continuously variable components -- two 4.5 kV capacitors and a roller inductor controlled by a precision crafted crank handle and a gear-driven 5-digit counter. Tune any antenna 1.8-30 MHz, lighted D'Arsonval Cross-Needle SWR/Wattmeter, 28uH roller inductor, 4:1 2.5 kW balun and 20 segment SSB Bargraph display.

More Fine Vectronics Amateur Products

AT-100 Tuned Active SWL Antenna **$79.99**
CK-200 Deluxe CW Keyer w/Curtis chip..... **$79.99**
DL-300M 300 Watt Dry Dummy Load..... **$44.99**
DL-650M 1500 Watt Dry Dummy Load..... **$74.99**
DL-2500 2500W Dry Dummy/cooling fan.. **$179.99**
VC-300M 300 Watt Mobile Tuner..... **$99.99**
VC-300D 300 Watt Tuner w/digital graph... **$179.99**
HPF-1 High Pass TVI filter 52-550 MHz..... **$24.99**
HPF-2 Deluxe high pass TVI filter..... **$29.99**
PM-30HF 1.8-60 MHz SWR/Wattmeter **$79.99**
PM-30UV 144/220/440MHz SWR/Wattmeter **$89.99**
LP-30 Low Pass filter, handles 1500 Watts..... **$69.99**
LP-2500 Low Pass Filter, 2500 Watts..... **$129.99**
PS-50F 35A power supply, 50A surge ...C/O **$139.99**

See the Price Guide for a list of Vectronics Electronic Kits

KOSS stereophones

SP/5 Sidefiring Portable Stereophone in Sport Yellow Frequency Response: 40-20,000Hz • Straight, dual entry, 4' cord w/3.5mm plug • Sensitivity: 92dB SPL/1mW • Imped: 32Ω • 0.46 oz ..... Closeout **$4.99**

HP/6 Portable Stereophone Frequency Response: 30-16,000Hz • Dynamic element for full sound • Foam ear cushions for open, hear-through sound • Durable headband adjusts for best fit • Volume control on cord for easy level adjustment • Straight, single entry, 4' cord with 3.5mm plug • Sensitivity: 91dB SPL/1mW • Impedance: 32Ω • 2.5 oz..... Closeout **$4.99**

KTX/4 Lightweight, Portable Stereophone Frequency Response: 40-20,000Hz • Collapsible design for easy storage and portability • Straight, dual entry, 4' cord with 3.5/6.4mm stereo plug • Volume control on the cord for easy level adjustment • Sensitivity: 95dB SPL/1mW • Impedance: 32Ω • 2 oz. **$14.99**

SB/30 Dynamic Microphone Stereophone Stereophone with 600Ω mic for hands-free communications • Closed, leatherette ear cushion for maximum isolation and deep bass • Frequency Response: 40-20,000Hz • Adjustable, padded headband for comfort during extended wearing periods • Straight, dual entry, 8' cord with 3.5/6.4mm Sensitivity: 100dB SPL/1mW stereo phone • Impedance: 100Ω • 9.0 oz ..... Closeout **$49.99**

QZ/99 Passive Noise Reduction Stereophone with Mono/Stereo Switch Frequency Response: 40-20,000Hz • Coiled, single entry, eight foot cord with 3.5mm/6.4mm plug • Sensitivity: 102dB SPL/1mW • Impedance: 60 Ω • 15 oz..... **$59.99**

QZ/2000 Noise Reduction Stereophone Revolutionary Active Noise Reduction (ANR) stereophone system reduces harmful/annoying low frequency sounds in noisy environments • >15dB SPL from 40-200Hz; average of 10dB SPL from 30-1000Hz • Frequency Response: 15-20,000Hz • Straight, dual entry, 4' cord • Includes compact control case and collapsible stereophone for convenient travel/portability • Adjustable headband • Includes input jack for audio play-through and 2-prong adapter for in-flight use • Sensitivity: 101dB SPL/1mW • Impedance: 5kΩ • Uses 2 "AA" batteries (incl.) • 2.3 oz..... **$179.99**

PREMIER communications

SPM-100 Small Speaker/Mic This is a lightweight, compact unit. The microphone features a high-quality condenser-style mic element and high-fidelity audio circuit that produces excellent transmitted audio clarity, as well as a powerful speaker. It may be secured to the user's lapel or shoulder **$21.99**

Lapel Mics The SPM-200 mics are the most comfortable lapel microphones on the market today! Each one features a high quality electret condenser microphone which clips to the user's lapel.
SPM-200..... Closeout **$9.99**

SPM-400A Mini Boom Mics The SPM-400A headsets include an in-the-ear speaker and a rubber-covered earloop design that adjusts to comfortably fit either the right or left ear of any user. The unit features an in-line Push-To-Talk switch that can be clipped to the user's lapel or belt **$25.99**

SPM-402 For Yaesu FT-50R, VX-1R, VX-5R..... **$29.99**

SPM-500 Throat Mic/Earphone The SPM-500 throat microphone is the answer to high noise environments. Our SPM-500 rests comfortably against the user's throat, picking up audio directly from vocal cords. This provides outstanding background noise suppression and surprising clarity... **$19.99**

SPM-700 Clandestine Palm Microphone This earphone/palm microphone combo features flesh colored cord for those "low profile" communications needs. Easily concealed under clothing..... C/O **$15.99**

See the Price Guide to find correct model numbers for your specific brand of radio.

YAESU

Choice of the World's top DX'ers℠

MD-200A8X Ultra-High Fidelity Desktop Microphone Designed for base station use with the MARK V FT-1000MP. Employs a studio-quality, wide range (30-17000Hz) dynamic element optimized for High Fidelity SSB operation. An exclusive Variable Side Pressure Control (VSPC) allows user adjustment of the overall frequency response. Adjustable from a totally-flat, natural, high-fidelity sound for everyday S-9+ rag chewing; or high-articulation with a moderate peak above 1500Hz, for DX or Contests. • Aluminum die-cast base with locking and momentary PTT switches • UP/DOWN scanning switches • Bright red LED • Housing can accommodate addition of favorite DX or Contest microphone element • Also works with the FT-847, FT-920 and FT-1000MP; also with the FT-1000/FT-1000D, but the "TX" LED will not operate • Includes a dual-connector cable with regular and modular microphone plugs • 4.7"w x 12.6"h x 4.9"d, 2.2 lbs..... **$379.99**

we have a **SECURE** web site at **www.aesham.com**

AMATEUR ELECTRONIC SUPPLY
5710 W. GOOD HOPE ROAD.
MILWAUKEE, WISCONSIN 53223
(414) 358-0333

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Gift Certificates Available For The Undecided

Certificates may be purchased from our Milwaukee store by calling 1-800-558-0411.

GOLDLINE

Full Range Dual Element Microphone

Provides full-range, smooth and articulate audio for AM, FM and "Hi-Fi" SSB. The wide 60 to 16kHz frequency response, with a +4 dB midrange peak @ 2kHz, produces a brilliant voice articulation which is so important for clear, understandable SSB audio and adds a well-balanced and robust low end. Its cardioid pattern reduces rear pick-up, helping to reduce fan noise and room echos.

In addition, the GOLDLINE comes equipped with a second element, the HC-4 "DX Dream Machine" or HC-5 "Full Range Articulation" element (described below). For extra punch when a pile-up or conditions get tough, you can switch in the alternate element with a narrower response providing even more speech power.

The diecast body is finished in high lustre black lacquer and topped with a crushproof golden grill. A "Wide/Narrow" switch selects the element and a "soft touch" microswitch provides smooth, noise free PTT operation. Includes a 5/8"x 27 threaded clip. Requires a CC-1 adapter cable listed in the next column.

GM-4 GOLDLINE with Full Range and HC-4 elements .. **$140.99**
GM-5 GOLDLINE with Full Range and HC-5 elements .. **$140.99**
GM-V "Vintage" GOLDLINE – A **built-in** matching transformer allows its use with older rigs like Collins, Hallicrafters, Johnson, etc. Uses the Full Range element and switchable Passive EQ circuit or an alternate narrow, more articiulate response **$155.99**

HM-i Studio Condenser Microphone

HM-i – A single element microphone with the entirely new High output, High Quality electret element designed by HEIL for use exclusively with **ICOM** radios. Uses the GOLDLINE body with a brushed stainless-steel top. A "Wide–Narrow" switch selects between a full range response, and a response with the high frequencies rolled off. Requires CC1-i adapter cable **$95.99**

HM-10/HM-10 Dual Studio-style Microphones

Old favorites upgraded with a new body and PTT switch like the GOLDLINE. The **HM-10** comes with your choice of a HC-4 "DX Dream Machine" or HC-5 "Full Range Articulation" element.

The **HM-10 Dual** contains both the HC-5 "Full Range Articulation" element and HC-4 "DX Dream Machine" cartridges, switch selectable, giving you a choice for varying conditions. Both require CC-1 cable.

HM-10 with HC-4 or HC-5 ... **$65.99**
HM-10 DUAL with HC-4 and HC-5 ... **$115.99**

HMM Hand Microphones

HMM Dual Element – Heavy duty, commercial quality. Contains an entirely new Full Range Dynamic element and a switch selectable HC-4 "DX" element. Internal noise canceling cavity greatly reduces background pick-up. The coiled cable is terminated with an 8-pin plug for KENWOOD or YAESU (specify) – not for ICOM..... **$78.99**

HMM-iC Single Element – Same as HMM, but contains the new HEIL Electret Condenser element designed specifically for outstanding performance with **ICOM** radios; no HC-4 or switch.....**$58.99**

ADAPTER CABLES & SWITCHES

CC-1 Adapter cable – Required for the GOLDLINE, and HM's. Specify the cable with connectors to match Icom, Kenwood, Ten-Tec or Yaesu radios. The 6 ft. cable is also wired with a 1/4 inch female jack to accommodate the FS-1 Footswitch or HS-1 Pushbutton Hand Switch. Specify radio/plug, see Price Guide ..... ea. **$30.99**

HS-1 Pushbutton Handswitch – Plugs into CC-1 for PTT control. Fits naturally and comfortably in the hand. A 6 ft. cable terminates into a 1/4" phone plug... **$25.99**

FS-1 Footswitch – Plugs into CC-1 for "hands-free" PTT operation. Stays put with non-skid pads. A 6 ft. cable terminates into a 1/4" phone plug **$30.99**

BASE, BOOM/CLAMP ASSEMBLIES

LX-1 Professional Studio Boom by LUXO – The spring loaded arm is balanced for a 1 lb. microphone – reaches 41 in. "C" clamp mount, 5/8" x 27 thread.... **$95.99**

SB-1 Small Microphone Boom – Extends from 10 to 20 in. Clutch system and "C" clamp mount keeps the microphone in place under any conditions..... **$33.99**

MA-1 Boom – Telescopes out to 30 in. and attaches to desk or shelf, or hangs from ceiling. Swivels a full 360° to place microphone right where you want it. You can use the FS-1 Footswitch or HS-1 Handswitch for PTT operation..... **$45.99**

TB-1 Table Base Mount – For HM-10, HM-i or GOLDLINE microphones. Heavy (2 lb-10 oz) cast metal base with non-skid cork feet, 6 inches high **$25.99**

SM-1 The Ultimate Shock Mount – Mounts on boom, 8-point flexible suspension supports and isolates GOLDLINE or HM's to reduce mechanical vibration ...**$50.99**

HEIL HIGH PERFORMANCE MICROPHONE ELEMENTS

If you aren't satisfied with the *"sound of your station,"* or need better audio performance, you can replace the cartridge in your microphone with a *Heil* – the same elements used in Heil high-performance microphones. Tiny in size, and easily replaces existing cartridges in most microphones.

HC-5 – Full Range Articulation

The replacement microphone cartridge that eliminates the mushy, bassy, paging-type audio produced by most factory supplied microphones. It makes any rig sound better and more intelligible by providing full articulation and improved clarity. The response is 350–4000Hz, with a sharp roll-off under 300Hz and above 3100Hz, with a peak at 2100Hz. The result is very clear, easy-to-understand SSB audio for everyday communications that will get you lots of complements. Its 2000Ω impedance works with low to medium–Z inputs. Size: 0.530"d x 0.850"w x 0.310"h **$30.99**

HC-4 – The "DX Dream Machine"

The replacement microphone cartridge for HF contest, DX and weak-signal VHF/UHF work. Produces outstanding results on aurora, backscatter, etc. Engineered to produce a high-pitched, pile-up busting 500–3800Hz response with a 10dB peak @ 2000Hz, and a sharp 12dB per octave roll off @ 500Hz. Super clarity with more punch is just what you need for making difficult contacts. It's a penetrating sound, not particularly pleasing for for everyday strong signal work, but otherwise – WOW! Its 2000Ω impedance works with low to medium–Z inputs. Size: 0.530"d x 0.850"w x 0.310"h.. **$30.99**

Other ADAPTERS

AD-100 Microphone/Boomset Adapter – Allows use of all HEIL products with the YAESU FT-100 series. Solves the problem of the multiplexed microphone, touch tone audio and control data appearing on the microphone line..... **$25.99**

HD-AT Headphone Attenuator/Adapter – Allows 1/4" headphone jacks to plug into 1/8". Has -6 dB pad to reduce output for safe use of HEIL headsets with FT-100 or IC-706... **$5.99**

XT-1 Matching Transformer – A sub-miniature audio transformer for matching Low–Z microphones to High–Z inputs as found in older Collins, Drake, Hallicrafters, etc .. **$15.99**

HEIL SOLVES THE ICOM PROBLEM!

With the exception of the IC-746 and the IC-756PRO, the mic. preamplifiers in all other ICOM transceivers are down in gain by -10dB, making it difficult to use high quality dynamic mics.

A new series of High Output, High Quality studio condenser electret microphone elements, that work only with ICOM radios are now used in the HM-i, HMM-iC, PRO-SET-iC, PRO-5-iC, BM-5-iC and HS-706

info@heilsound.com

PRO-SET/BOOMSETS

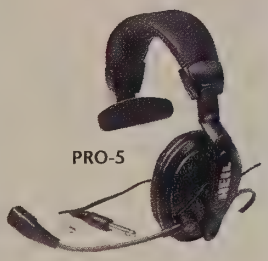
Over the years, the HEIL Pro-Set has become the defacto standard for the leading DX-Pedition and Contest operations worldwide. With feedback from those top operators, HEIL has strived to make this great product even better.

- *A new fibre reinforced material is now being used for the side pieces with a more rigid swivel stud for the earphone.*
- *A new smooth leatherette material on the cushioned ear pads give them more life and comfort.*
- *No increase in price!*

PRO-SET

PRO-SET Boomset – A rugged, lightweight boomset designed for performance and comfort during extended wearing times. The padded, fully adjustable headband provides maximum comfort. Heavily padded vinyl earpads seal out noise, and are removable for washing. The flexible microphone boom is adjustable to your liking and folds up for convenient storage or transport. Cable is wired with 1/4" stereo plug and 1/8" transmit audio plug.

PRO-SET-4 with HC-4 "DX" element **$130.99**
PRO-SET-5 w/HC-5 "Full Range" element .. **$130.99**
PRO-SET-iC with the new FET Electret element for ICOM radios, with AD-1-ic adapter cable..... **$147.99**


PRO-5

PRO-5 Boomset – If you are concerned about covering both ears and want to monitor your surroundings, the PRO-5 will do the job. Provides all of the quality and performance as the PRO-SET without covering the right ear. Cable is wired with 1/4" stereo plug and 1/8" transmit audio plug.

PRO-5-4 with HC-4 "DX" element **$120.99**
PRO-5-5 with HC-5 "Full Range" element... **$120.99**
PRO-5-iC with the new FET Electret element for ICOM radios, with AD1ic adapter **$137.99**

BM-10/ BM10IC

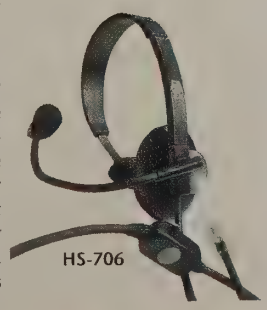
BM-10 Headset/Boom Microphone – Features a lightweight (8 oz.), soft and comfortable headphone for prolonged use in contest, etc. The high performance boom microphone is available with the Heil HC-5 "Full Range Articulation" element or the HC-4 "DX Dream Machine" element. Cable is wired with 1/4" stereo plug and 1/8" transmit audio plug.

BM-10-4 with HC-4 "DX" element **$89.99**
BM-10-5 with HC-5 "Full Range" element **$89.99**
BM-10-iC Headset/Boom Microphone for ICOM only – Utilizing Heil's new FET Electret element, this model produces articulate audio engineered exclusively for ICOM radios. Terminated with 1/4" stereo plug and 1/8" transmit audio plug and supplied with AD-1-ic adapter cable for Icom radios..... **$106.99**

BM-5

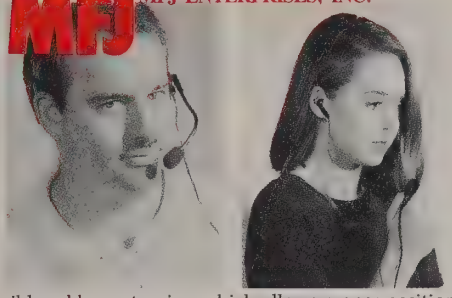
The BM-5 series – same as the BM-10 but in a single headphone version. Great for mobile and for those desiring just a single side headphone.

BM-5-4 with HC-4 "DX" element..... **$69.99**
BM-5-5 with HC-5 "Full Range" element..... **$69.99**
AD-1 Adapter cable – Adapts PRO-SET, PRO-5 and BM-5/10 to Icom, Kenwood, Ten Tec or Yaesu. **AD-1 Modular Cable** adapts boomsets to Kenwood or Yaesu rigs with modular jack, specify ..... ea. **$17.99**
BM-5-iC with new FET Electret Element for ICOM radios, with AD-1ic adapter **$86.99**


HS-706

HS-706 Single-side Headset/Boom Microphone for the **ICOM IC-706 series.** A FET electret microphone produces plenty of articulate audio. The headphone is foam padded and vinyl covered for comfort and incorporates a wide-range dynamic unit The flexible microphone boom rotates 180° and may be worn on the left or right ear. A handy PTT switch is mounted half way down the 6 ft. cable which is terminated with an 8-pin modular plug **$59.99**

MFJ ENTERPRISES, INC.



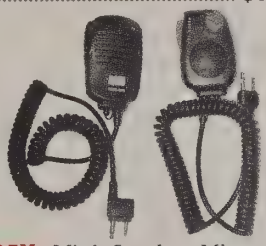
HEADSET MICS

288 Deluxe Headset Microphone™ *(left)* Light-weight, comfortable. Superb transmit audio – picks up your voice even at a whisper. Superb earphone tonal quality and intelligibility. The foam covered microphone element is attached to the headset with a flexible rubber extension which allows proper positioning of the microphone. The small PTT switch can be held or conveniently attached to your clothing. 6' of cord from headset to plug. **288I** works with ICOM, older Yaesu, Standard, ADI, Radio Shack and compatibles. **288K** works with Kenwood and compatibles. **288Y** works with Yaesu FT-10, 50 and VX transceivers ..... each **$24.99**

292Y Featherweight™ Earphone/Mic *(right)* An ear-plug earphone that fits comfortably in your ear. Consists of a tiny thumb size microphone with push-to-talk switch with lapel/pocket clip is built into the 4 ft. cord. The high quality dynamic earphone and electret-type microphone gives your handheld crystal clear audio on receive and transmit. Works with Icom Q7A, Yaesu FT-10R, FT-40R, FT-50R and VX series transceivers **$17.99**

MICROPHONES

297 Pro Grade Desk Microphone Sensitive, premium grade condenser mic element coupled with a low-noise amp. SSB mode gives smooth, articulate audio for DX punch or select full-range mode for clear FM/AM operation. Flexible microphone boom, Soft-Touch™ momentary and locking PPT switches. On-the-Air LED indicator. Frequency up/down switch. 4"w x 1.25"h x 6"d base with rubber feet. Requires 2 "AA" batteries. Adapters 5397 Y/K/I/MX/MY ($15.99 ea.) .. **$69.99**



295Y Mini Speaker Microphone *(left)* For tiny popular YAESU handheld transcivers – FT-10R, 40R, 50R, VX-1R and ICOM IC-Q7A. Non-directional electret element gives your radio clear transmit audio. Tx LED. 53dB, Z-1000Ω. For Icom, specify **295I**. For Kenwood, **295K**..... ea. **$15.99**

296I Deluxe Speaker Microphone for ICOM *(right)* Electret element. Has PTT lock, volume control and 360 degree rotating lapel clip..... **$19.99**

HEADPHONES

396 Professional Grade Boom Mic/ Headphone *(right)* Designed for contesting, DXing and traffic nets. Features a *total comfort* design with 3/4" thick padding on each ear and headband. Super lightweight! Adjustable headband gives a perfect fit, keeps out noise. Enhanced headphone frequency response brings out speech fidelity, signals never sounded so clear. Flexible mic boom lets you position the mic comfortably at an optimum distance to minimize sibilant sounds. Tailored frequency response microphone element helps bust through noise and QRM. Has a 9 ft. cable with standard 1/4" jack for headphones and 3.5mm jack for microphone. Microphone adapters: order 5396 Y/K/I ($15.99 each)..... **$79.99**

394 Single Ear Boom-Mic Headphone Same features as the MFJ-396, but the single-ear design lets you hear your radio and what's going on around you. Perfect for contest groups, mobile operation, DXing, etc..... **$74.99**

1709 Foot-Operated PTT Switch For MFJ-396 and 394. Hands free operation improves efficiency and reduces fatigue. Non-skid pad with cushioned pedal. 10 ft. cord with 1/4 in. standard phone plug. 2.5"w x 3.5"d x 1.25"h..... **$21.99**

392 Communications Headphones *(left)* Perfect for amateur radio and shortwave listening, great for all modes. Superb padded headband and ear cushion design, plus lightweight (8oz). High-performance driver units with 100Hz-24,000Hz frequency response provide enhanced sound and outstanding speech fidelity. Each earphone has individual volume and bass controls. Comes with gold-plated plug & 9' cord. *Power handling:* 450 mW *Impedance:* 16Ω at 1kHz *Sensitivity:* 102 dB/mW. Mono or stereo. Includes 1/4" adapter..... **$19.99**

KENWOOD

HS-5 Deluxe Headphones Specifically designed for use with communication systems. It provides natural sound and eliminates uncomfortable pressure feeling which permits long hours of fatigue free listening. To increase the volume level or when you are using the headphones in a noisy room or want privacy, replace the ear-pads with the vinyl leather ones. These are pressure-fit type ear-pads and will increase the sound pressure by about 10dB while sealing out noise. Both types are included. Includes 6 feet connecting cord with plug. Impedance: 8Ω • Maximum input: 200mW @ 1000 Hz) • Frequency Response: 150-4000 Hz (-6dB) • Approx. 350g **$79.99**

MOTOROLA

HEADSET

53725 FRS Headset with Swivel Boom Mic Allows you to clearly hear messages from Motorola FRS units in high noise areas or in quiet environments without disturbing others. Transmit messages without removing radio from belt or case. Enjoy hands-free talk when used with a Voice Activated Transmission (VOX) capable TalkAbout **$14.99**

HF-24RS Headphones For Scanners Designed specifically for racing fans. • Adds to the excitment when using your scanner at the races • Listen in on the conversations between driver and pit crew with reduced noise • Snug fit, cushioned headband for wearing comfort • Comfort fit cushions let you hear the action over crowd and engine noise • Dual volume control to maximize hearing levels • Includes a 3.5mm Premium Gold right angle plug with a 10 ft. coiled cord.... **$19.99**

SHURE

526T Series II SUPER PUNCH® Transistorized Base Station Microphone Adjustable height, dynamic micrphone with built-in preamp and output level control. Designed to replace ceramic or dynamic, high or low impedance mics originally supplied with most equipment. The 200 to 6,000Hz frequency response provides optimum intelligibility. Comes with 6-wire cable and triple pole double-throw locking PTT for wide range of mic to transceiver connections. Includes 9V battery... **$124.99**

ASTATIC

10DA-L High-Z dynamic SSB microphone head. Controlled 300–3000Hz response provides high attenuation of the unwanted sideband and better copy through interference. 2⅞"w x 1⅛"h x ⅛"d, 17 oz. Black. Uses T-UG9 stand, below..... **$69.99**

D-104L The original *"super talk power"* microphone head. High output and 300-7500Hz response with rising characteristics between 500 and 4000Hz, provides maximum intelligibility. Shock proof cartridge with high-Z crystal element, metal sealed for protection. Solid machined brass parts, heavy mesh grille, all chrome plated. 3" diameter x 1⅛"d, 14 oz. Uses the T-UG9 stand, below..... **$42.99**

T-UG9 Accepts D-104L and 10DA-L microphone heads. Built-in adjustable preamp with output impedance, matches most transmitters. Side switch bar for PTT with slide-up locking clamp. 8½"h without head, 5½" dia. base. Chrome and grey, 6-wire coiled cable. Uses 9 volt battery **$52.99**

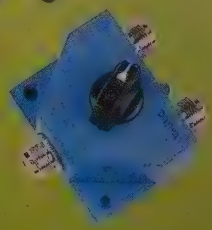
Daiwa CN-801S, CN-465M, CN-103N and CS-201GII are Special Order

DAIWA

Accurate Measurements NO EXCUSES.

Professionally Engineered "Cross Needle" Meters

Forward power, reflected power and VSWR are displayed simultaneously! No calibration required! Daiwa high quality instruments make the tedious measuring of SWR and Power during antenna tests, transmitter matching and tuning a very easy task.



Professional Series

Accurate and dependable featuring a large, easy-to-read lighted meter. 13.8VDC jack on rear panel. 6"l x 4¼"h x 4½"d (approx.)

CN-801H
Frequency Range: 1.8-200MHz
Forward Power Ranges: 20/200/2000W

CN-801V
Frequency Range: 140-525MHz
Forward Power Ranges: 20/200W

CN-801S
Frequency Range: 900-2500MHz
Forward Power Ranges: 2/20W

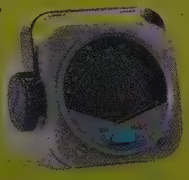
Economy Series

Accurate and dependable bench meters at an economy price.
Lighted, 13.8VDC jack on rear panel.
6"l x 3"h x 4"d (approx.)

CN-101
Frequency Range: 1.8-150MHz
Forward Power Ranges: 15/150/1500W

CN-103M
Frequency Ranges: 140-525MHz
Forward Power Ranges: 20/200W

CN-103N (N-Type Conns)



Mobile Series

Compact design, mounting bracket included.
Lighted, 13.8VDC jack on back panel.
3"l x 3"w x 4"d (approx.)

CN-410M
Frequency Range: 3.5-150MHz
Forward Power Ranges: 15/150W

CN-460M
Frequency Range: 140-450MHz
Forward Power Ranges: 15/150W

CN-465M
Frequency Range: 140-525MHz
Forward Power Ranges: 15/75W

Coax Switches

Patented design and excellent RF characteristics. Automatic grounding of unused circuits with heavy-duty die cast cavity construction.

CS-201
2-Position 600MHz Switch
Max. Power: 2.5kW PEP/1kW CW
Conns: SO-239

CS-201GII
2-Position 2GHz Switch
Max. Power: 1.5kW CW
Conns: Gold-plated N-Type

CS-401
4-Position 800MHz Switch
Max. Power: 2.5kW PEP/1kW CW
Conns: SO-239

NCG COMPANY
(714) 630-4541 • (800) 962-2611
(714) 630-7024 fax
www.natcommgroup.com

1.8-170 MHz SWR Analyzer™

The MFJ-259B

If you are serious about performance ... you Need one of these!

You've spent a lot of time and money on your antenna system, so why not make sure it's giving you top performance? An MFJ SWR Analyzer will do that – plus, it will make you very popular because all of your Ham buddies are going to try to borrow it!

MFJ-259B
$239.99

The MFJ-259B is a complete Ham radio test station including – Frequency Counter, RF signal generator, SWR Analyzer™, RF Resistance and Reactance Analyzer, Coax Analyzer, Capacitance and Inductance Meter and more!

Take the frustration out of getting your antennas properly tuned up for maximum performance. Gone are the days of using a conventional, sometimes questionable, SWR meter. You will no longer have to drag your rig (RF source) out into the yard. No more risking a heart attack running in and out of the house or up and down the tower to make those seemingly endless readings and adjustments.

The MFJ-259B is an all-in-one unit, with a built-in RF source so you can take it to the antenna, take one reading to get a complete picture of your antenna performance, and make all tuning adjustments on the spot.

Super EZ to use! Connect the feed line, set the bandswitch and tune the dial -- just like a transceiver. All information is clearly displayed instantly on the large, easy-to-read, 2-line LCD screen and side-by-side meters.

Read antenna SWR & Complex Impedance from 1.8-170MHz. Complex Impedance can also be read as series resistance and reactance (R+jX) or as magnitude (Z) and phase (degrees).

When tuning transmission lines or making up phasing harnesses for stacking antennas, you can quickly determine exact 1/4 or 1/2 wavelengths. You can also determine the velocity factor, coax cable loss in dB, length of coax and distance (in feet) to a short or open in coaxial cable.

Read SWR, return loss and reflection coefficient at any frequency, simultaneously, or inductance and capacitance at RF frequencies at a glance.

The MFJ-259B has a built-in frequency counter, Ni-Cad charger circuit, battery saver, low battery warning, and smooth reduction drive tuning.

Overall, Here's what you can do

- Find true resonant frequency of antenna.
- Trim dipoles and verticals.
- Adjust your Yagi, quad, loop and others, change antenna spacing and height. Watch SWR, resistance & reactance change instantly. You'll know exactly what to do, simply watch the display.
- Perfectly tune critical HF mobile antennas in seconds for super DX -- without subjecting your transceiver to high SWR.
- Measure your antenna's 2:1 SWR bandwidth on one band, or analyze multiband performance over the entire spectrum 1.8-170 MHz!
- Check SWR outside the ham bands without violating FCC rules.
- Take the guesswork out of building and adjusting matching networks and baluns.
- Accurately measure distance to a short or open in a failed coax. Measure length of a roll of coax, coax loss, velocity factor and impedance.
- Measure inductance and capacitance.
- Troubleshoot and measure resonant frequency and approximate Q of traps, stubs, transmission lines, RF chokes, tuned circuits and baluns.
- Adjust your antenna tuner for a perfect 1:1 match without creating QRM.

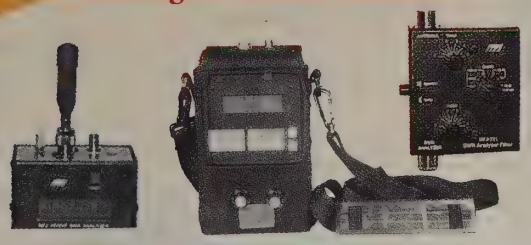
Take it anywhere

Fully portable, take it up towers, to remote sites, or on DX-peditions. It uses 10 AA or Ni-Cad batteries (not included) or 110 VAC with **MFJ-1315, $14.99**. Its rugged, all metal cabinet is a compact 4" x 2" x 6¾".

How good is the MFJ-259B?

Many manufacturers use them in their labs and on production lines – saving thousands of dollars in instrumentation costs.

plus, the MFJ-269 with E-X-P-A-N-D-E-D Frequency Coverage & Added Features



Analyzer Accessories

MFJ-66 $19.99. Dip Meter Adapter. Plug a dip meter coupling coil into your MFJ SWR Analyzer™ and turn, it becomes a sensitive, accurate dip meter. Set of two covers 1.8-170MHz.

MFJ-29C $24.99. *Genuine* MFJ Carrying Case. Tote the MFJ-259B anywhere with this custom carrying case. Wear it around your waist, over your shoulder, or clip it onto the tower while you work. Has back pocket for carrying dip coils, adapters and accessories. Made of special foam filled fabric to cushion blows and deflect scrapes. Protect knobs, meters and displays from harm.

MFJ-39C $24.99. *Genuine* MFJ Carrying Case. Same as MFJ-29C except that it fits the MFJ-269.

MFJ-731 $89.99. Tunable Measurement Filter™ Allows accurate SWR and impedance measurements 1.8-30 MHz in presence of strong RF fields. Has virtually no effect on measurements. Works w/all SWR analyzers.

MFJ-99 $54.99. Accessory Package for MFJ-259/B/249/B/209. Includes 29C carrying case, 66 dip meter adapter, 1315 110 VAC adapter. ***Save $4.98!***

www.mfjenterprises.com

MFJ-269 SWR Analyzer™

Covers 1.8-170 MHz plus 415-470 MHz

Looks identical to and has all the features of the MFJ-259B PLUS...

- Covers 1.8 to 170 MHz plus **415 to 470 MHz**
- Built-in **CoaxCalculator™** -- calculates coax length in feet given coax length in electrical degrees and vice versa, and any velocity factor (great for building matching sections and phasing lines for multiple antenna set-ups).
- New 12-bit A/D converter gives much better accuracy and resolution than common 8-bit A/D converters.

New 1.8 to 170 MHz Range features

- Read Complex Impedance as series equivalent resistance and reactance (Rs+jXs) or as magnitude (Z) and phase (degrees). Also reads parallel equivalent resistance and reactance (Rp+jXp).
- Measure SWR and loss of coax with any characteristic impedance from 10 to over 600Ω, including 50, 51, 52, 53, 73, 75, 93, 95, 300, 450Ω .

415 to 470 MHz Range features

- Read SWR, return loss, reflection coefficient simultaneously, and cable loss in dB and match efficiency.
- Has LCD logarithmic SWR bargraph and SWR meter for quick tuning.
- Uses MFJ-39C Carrying Case

MFJ-269
$319.99

Coaxial Dynamics

RF DIRECTIONAL WATTMETERS

81000-A **RF Directional Wattmeter** Accurate RF Power measurement in 50Ω coaxial systems. Uses an internal line section and "Quick Match" plug in elements in the range of 0.1~10,000 watts full scale, and from 0.45 to 2300 MHz.

Simply plug in the appropriate measuring element and select forward or reflected direction. Measured average RF power is indicated directly on the large 4-1/2 inch "taut-band" meter with three scale display. The meter is also mirrored and shock mounted to provide the most reliable and accurate readings.

Strong shock-proof housing. Supplied with SO-239 connectors (Type-N female Special Order) **$260.99**

83000-A **RF Peak Reading Wattmeter** Similar in appearance and operation to the standard Model 81000-A wattmeter. Contains an amplifier which allows measuring of both Average and Peak Envelope Power (PEP) with the flip of a switch. Internal 9V battery is required and supplied for peak reading mode **$393.99**

STANDARD PLUG-IN ELEMENTS

82004 2 to 30MHz; 50W **$87.99**
82005 2 to 30MHz; 100W **87.99**
82006 2 to 30MHz; 250W **87.99**
82007 2 to 30MHz; 500W **87.99**
82008 2 to 30MHz; 1000W **87.99**
82009 2 to 30MHz; 2500W **125.99**
82010 2 to 30MHz; 5000W **125.99**

82013 25 to 60MHz; 10W **71.99**
82014 25 to 60MHz; 25W **71.99**
82015 25 to 60MHz; 50W **71.99**
82016 25 to 60MHz; 100W **71.99**

82029 100 to 250MHz; 10W **71.99**
82031 100 to 250MHz; 50W **71.99**
82033 100 to 250MHz; 250W **71.99**

82046 400 to 1000MHz; 10W **71.99**
82048 400 to 1000MHz; 50W **71.99**
82049 400 to 1000MHz; 100W **71.99**

ACCESSORIES

88000 Type-N female "QM" connector **$9.99**
88800 Carrying case **55.99**

We accept I.M.P.A.C.® Government Credit Cards

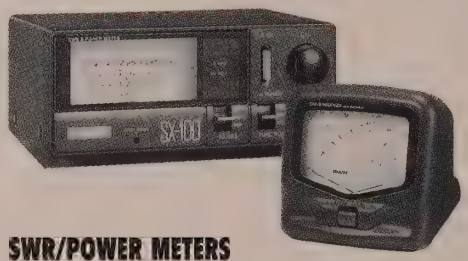
Bel MERIT

DX-405 **Multi-function Multimeter** *(left)* 10 functions/39 ranges • 3½ digit, manual ranging • Frequency meter, to 20MHz • 0.25% DCV basic accuracy • Measure voltage, current, resistance and diode • Continuous beeper • Data hold • Auto power off • Input warning • Tilt stand with lead holder • Holster • 4"w x 7.5"h x 1.5"d, 1.5 lb **$69.99**

DX-355 **Digital Multimeter** *(middle)* For industrial heavy-duty (all current range fused) extensive overload protection • 0.25% DCV basic accuracy • Measure voltage, current, resistance, diode and freq. up to 20MHz • True RMS reading • Data hold • Auto Off • Tilt stand with lead holder • Protective holster • 4"w x 7.5"h x 1.5"d, 1.5 lbs ..... Closeout **$74.99**

DM-80 **Pocket Digital Multimeter** *(right)* 3200 count • 32 segment bargraph • Auto/manual ranging • Auto power off • Data hold • Range • Voltage, AC/DC 450V • Current, AC/DC 300mA • Resistance, 30MΩ • Diode test • Continuity beeper • Over range indication • Low batt. mark auto polarity • Carrying case incl. • 2"w x 4.1"h x 0.4"d, 3.2 oz **$34.99**

DIAMOND ANTENNA



SWR/POWER METERS

(left) Five models measure power and SWR with 5–10% of F.S. accuracy. Illuminated meter, sensor switch, LED indicator. Power ratings for intermittent operation. For continuous, ratings vary with frequency. SO-239 connectors on all except SX-1000 (type-N). 6"w x 2½"h x 4"d, 2 lbs.

SX-100 1.6-60MHz, 30/300/3kW PEP **$134.99**
SX-200 1.8-200MHz, 5/20/200W PEP **$94.99**
SX-400 140-525MHz, 5/20/200W PEP ... **$114.99**
SX-600 Dual band, 1.8-160MHz and 140-525MHz, 5/20/200W PEP ranges **$169.99**
SX-1000 Dual band, 1.8-160MHz and 430-1300MHz, 5/20/200W PEP ranges **$214.99**

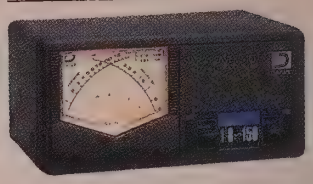
CROSS-NEEDLE SWR/POWER METERS

(right) Indicate forward and reflected power and SWR simultaneously. 50Ω impedance, SO-239 connectors, 10% F.S. accuracy, 3.3"w x 3.4"h x 3.7"d, 9 oz.

SX-20C 3.5-30/50-54 & 130-150MHz ranges; 30/300W. Needs 5W minimum for VSWR .. **$89.99**

SX-40C 144-470 MHz (220 MHz with correction factor); 15/150W (3W minimum power) **$79.99**

DAIWA industry co. ltd.



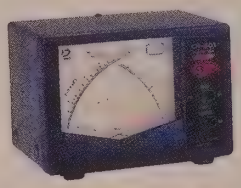
CROSS NEEDLE SWR/POWER METERS

CN-101 Covers 1.8 to 150MHz, rated at 1500W from 1.8-60MHz and up to 1000W at 144MHz. Shows Forward and Reverse power and VSWR simultaneously. Three Power Ranges: 15/150/1500W (RMS or PEP); ±10% of full scale accuracy. SWR detection sensitivity: 4W minimum. 50Ω impedance, SO-239 connectors. 6"w x 3"h x 3⅞"d, 1½ lbs **$99.99**

CN-103M Same as CN-101, but covers 140-525MHz and rated at 200W. Two Power Ranges: 20/200W (RMS or PEP) **$99.99**

CN-410M **Compact Meter** For mobile or base use – covers 3.5-150MHz. Two power ranges: 15/150W forward and 50/5W reflected. Backlit meter shows forward and reverse power and VSWR simultaneously. SWR detection sensitivity: 3W mini. 50Ω impedance, SO-239 connectors. Mounting bracket included. 2¾" x 3"d x 3⅞"d, 10 oz **$104.99**

CN-460M **Compact Meter** Same as CN-410M, but covers 140-450MHz **$104.99**



PROFESSIONAL SERIES

The CN-801 series of cross needle meters features the most accurate meter and largest meter face in the Daiwa line. The large, easy-to-read meter has .5W increments and is lighted. This is truly a professional quality meter. • 5W SWR detection sensitivity (min.) • 50Ω impedence • 6"l x 4"h x 4.5"w • 2.2lbs

CN-801H 1.8-200MHz, 20/200/2kW **$149.99**
CN-801V 140-525MHz, 20/200W **$154.99**
CN-801S 900-2500MHz, 2/20W, Type-N **Spec Order**

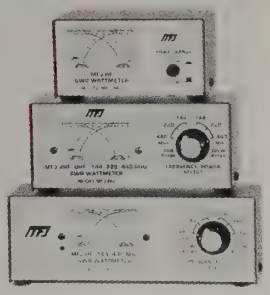
VELLEMAN

DVM-810 **Digital Multimeter** Compact design makes this meter a perfect fit for any toolbox or even shirt pocket! It features multiple functions and an easy-to-read LCD display. • 3.5 Digits • 19 ranges • Measures voltage, current, resistance, transistor and diode • Battery included **$19.99**

Service Questions?
414-358-4087
Milwaukee, WI

MFJ ENTERPRISES, INC.

SWR/POWER METERS



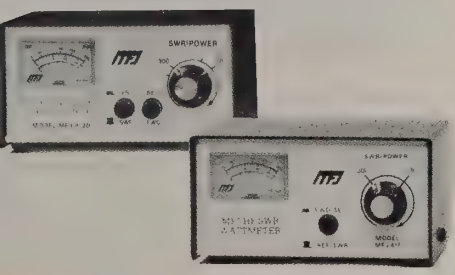
864 *(bottom)* Covers 1.8-60MHz, 144MHz and 440MHz bands. Dual sensors, connect an HF and VHF/UHF rig at the same time. Monitor SWR and power of either. Lighted cross-needle meter indicates 30/300W forward and 6/60W reflected power simultaneously. Uses 12V DC for meter light. 7¼"w x 2¼"h x 2¼"d **$84.99**

862 *(middle)* Similar to 864, but for 144MHz, 220 MHz and 440MHz. Ranges: 30/300W forward and 6/60 watts reflected. 5¾"w x 2½"h x 2¼"d **$54.99**

860 *(top)* Similar to the 864, but covers HF – 1.8 to 60MHz. Ranges: 30/300 watts forward and 6/60 watts reflected. 4½"w x 2¼"h x 3"d..... **$44.99**

815B Features large 3" cross-needle meter. Gives accurate SWR and peak or average power readings from 1.8–60MHz. Ranges: 200/ 2000W forward and 50/500W reflected. Push buttons 12V DC for meter light. 7¼"w x 2½" h x 2¼"d **$79.99**

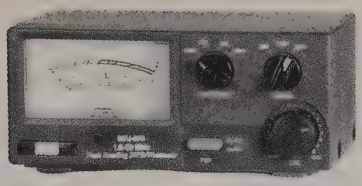
817 Looks & features similar to 815B but covers 144 & 440MHz bands. Power Ranges: 200/20 forward and 50/5W reflected. 7¼"w x 2½"h x 2¼"d... **$89.99**



812B *(top/left)* Indicates forward and reflected power on 2M and 220MHz and SWR 14–220MHz, plus field-strength 1–220MHz. Ranges: 30/300W ranges. Measures only 4½"w x 2¼"h x 3"d ... **$34.99**

816 Toroidal Meter *(bottom/right)* Indicates forward and reflected power from 1.8 to 30MHz. Ranges: 30/300W. Only 4½"w x 2¼"h x 3"d **$34.99**

844 VHF/UHF SWR/Power Meter Covers 144 and 440MHz and handles 200W. Measures SWR and Power in three ranges: 15, 60, and 200W. 50Ω impedance, SO-239 connectors. Insertion loss is 0.3 dB or less. Measures only 3¾"w x 3"h x 1¼"d. Easy to read multi-colored meter. Great to take along for those portable, HT or mobile rigs **$69.99**



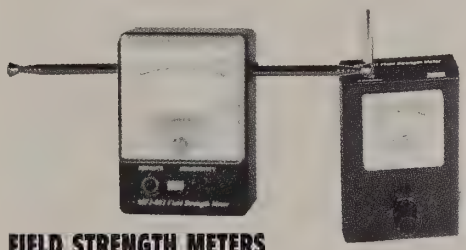
GrandMaster™ 3¼ x 1¼" meter, forward and reflected. Three ranges. 13.8V/110V. 7½"w x 3⅛"h x 4¼"d.

870 (HF Range) Covers 1.6 to 60MHz. Power ranges: 30/300/3000W **$124.99**

872 (HF/VHF Range) Covers 1.8 to 200MHz. Power ranges: 5/20/200W **$94.99**

873 (VHF/UHF Range) Covers 125 to 525MHz. Power ranges: 5/20/200W..... **$104.99**

874 (HF/VHF/UHF Range) Covers 1.8 to 525MHz. Power ranges: 5/20/200W..... **$159.99**



FIELD STRENGTH METERS

801 Super Compact Field Strength Meter *(right)* You can read relative field strength from your antenna, measure antenna performance and discover how strong your antenna field is. Its super compact size fits in the palm of your hand, only 2⅜"w x 3⅜h" x 1"d. Telescopic whip included **$19.99**

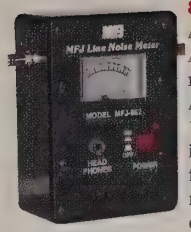
802 Bipolar Field Strength Meter *(left)* Dual whips are included, 2⅜"w x 4"h x1½"d **$39.99**

MISCELLANEOUS

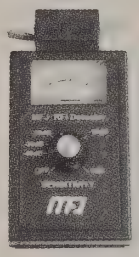
850 Line Voltage Monitor *(left)* Plug into any 110V AC outlet and monitor the line voltage on an expanded/colored 95 to 135V AC scale. Measures 2¼"w x 2¼"hx 1½"d..... **$19.99**

204B Antenna Bridge *(right)* Quickly optimize 1.8-30MHz antennas for peak performance. Portable - take it to an antenna site. Determine if an antenna is too long or too short, measure resonate frequency and resistance to 500Ω. Built-in resistance bridge, null meter and tunable oscillator-driver. Requires 9V battery. Measures 4"h x 2"w x 2"d **$79.99**

224 2M FM SignalAnalyzer™ Measure signal strength over 60dB range; check and set FM deviation, measure antenna gain, beamwidth, front-to-back ratio, sidelobes, feedline loss. Plot field strength patterns, position antenna, measure preamp gain, tune transmitters and filters. Use scope to analyze modulation wave forms, measure audio distortion, noise and peak deviation. Covers 143.5-148.5MHz. Head-phone jack, battery (9V) check function. 4"x2½"x6¾"..... **$149.99**



852 Power Line Noise Meter A sensitive (0.3 uV) superhet AM receiver with a wide range noise level meter. Wide-range AGC (over 70dB). Tuned for the 135 MHz region where activity is a minimum and radiation from corona and arcing is far more localized. The telescopic, direction-finding dipole antenna is balun isolated and optimized to give a sharp, clearly defined null for accurately pin-pointing noise sources. Plug in your headphone and hear the noise you're tracking or plug in a tape recorder and record the offending noise for playback to your local power company. Compact size: 2.8"w x 4"h x 1.5"d. Uses a 9 volt battery **$89.99**



805 Pocket-Sized RFI Detector Track down and eliminate RFI caused by radiating cables and wires. Simply clamp the top mounted current transformer over suspected cable or wire (up to 1/4 inch diameter) to detect RFI causing common-mode currents. Useable from VLF to VHF. Uses 9V battery. 2.25"h x 4.75"h x 1"d **$79.99**

886 Pocket Frequency Counter Covers 1MHz–3GHz • 300MHz direct count with 0.1Hz/second resolution • 10-digit high contrast LCD with 3/4" digits • Impedance: 50Ω (VSWR @ <2:1) • Sensitivity: 0.8mV @ 100MHz, 7mV @ 300 MHz, 6mV @ 1GHz, 100mV @ 2.3GHz. • Maximum input: 15 dBm • Synchronous detector • Ultra-sensitive RF signal strength LCD bargraph • Four selectable gate times give 1Hz–10Hz resolution (300MHz range) and 10Hz–1000Hz resolution (3GHz range) • Up to 6 hours operation from rechargeable Ni-Cad batteries (included) • Rugged aluminum cabinet, pocket • 2.75"w x 3.25"d x 1.25"d • Includes 110 VAC adapter and telescoping antenna..... **$109.99**

854 RF Current Meter A top-mounted sense coil snaps over wires and cables, etc. up to 1/2" diameter • Measures actual RF currents in antenna elements, radials, ground wires and on the outside of coax feedlines • Six ranges, 30mA to 3A • Accurate from 1-30MHz • Range with variable sensitivity control, allows tracking down RFI-causing current on household wiring and cables • Press-to-test power circuit turns unit off automatically after 15 seconds to provide long battery life • Built-to-last, all-aluminum case and G-10 PC board • 2.5"w x 5.5"h x 1.5"d, 11 oz..... **$89.99**

Used & Demo Equipment lists

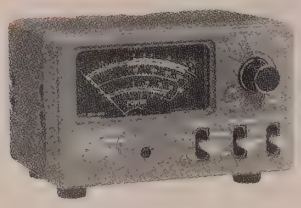
Updated regularly on the web.
Check them out and order **On-line**

MIRAGE

Three models all measure RMS, peak forward and reverse power and SWR, directly without charts or calculations. Negligible insertion loss. Remotable coupler, SO-239 connectors. Requires 9V battery, or AC adapter. Low battery indicator. 5¾"x 4½"w x 5¾"d, 3½ lbs.

MP-1 1.8-30MHz; 25, 200, 2KW PEP..... **$219.99**
MP-2 50-200MHz; 50, 500, 1.5KW PEP.. **$219.99**
MP-3 420-450MHz; 5, 50, 150W PEP..... **$249.99**

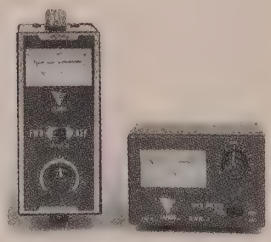
YAESU



YS-60 Monitors average (CW) and peak (SSB) transmitter power and VSWR. Covers 1.6 to 60MHz, up to 2KW. Ranges: 0/200 & 2000W PEP. 50Ω imped., SO-239 connectors. Requires 12V DC for lamps & internal circuits. 4¾"w x 2¾"h x 3½"d, 1½lbs..... **$129.99**

YS-500 Similar to YS-60, but covers 140–525MHz and has 4/20 & 200W PEP ranges..... **$109.99**

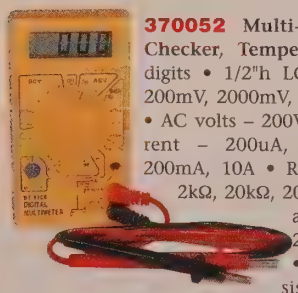
VANCO™



LOW COST METERS

SWR-1 **Field Strength or SWR Meter** *(left)* Range: 3.5 to 150 MHz; Impedance: 52Ω; SWR: 1:1–3:1; Accuracy: 5%; Meter Sensitivity: 300uA. 5" RF pick-up antenna. 6"h x 2"w x 2⅞"d, 14 oz..... **$19.99**

SWR-3 **SWR Meter** *(right)* Range: 1.7-30MHz • Impedance: 50–52Ω • SWR: 1:1-3:1 • Accuracy: 5% • Sensitivity: 300uA • 2½"x3½"x3", 6oz..... **$14.99**



370052 **Multi-Meter, Capacity Checker, Temperature Meter** 3½ digits • 1/2"h LCD • DC volts – 200mV, 2000mV, 20V, 200V, 1000V • AC volts – 200V, 750V • DC current – 200uA, 2000uA, 20mA, 200mA, 10A • Resistance – 200Ω, 2kΩ, 20kΩ, 200kΩ, 2MΩ • Capacity – 2000pf, 2nf, 200nf, 2uf, 20uf • Diode test • Transistor hfe • Test leads & 9V battery • 2.6"w x 4.8"h x 1"d ... **$19.99**

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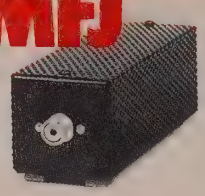


DUMMY LOADS *(OIL FILLED)*

250 **Versaload** *(right)* 50Ω oil-filled dummy load providing low VSWR to 400 MHz. Rated at 1 KW CW or 2KW PEP for 10 min., with 50% power rating for 20 minutes and 200W CW (400W PEP) continuous. 7¼"h x 6⅝" diameter ..... With oil **$59.99**

250X Same as above, but requires oil..... **$39.99**

(DRY LOADS)

(left) Air cooled, non-inductive 50Ω resistor mounted in a metal housing. Full rated load for 30 seconds with derating curve to 5 minutes.

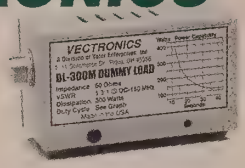
260C (HF/VHF) Rated at 300W. 1:1 SWR to 30MHz, .5:1 to 650MHz. 2½" x 2½" x 7" **$34.99**

260CN With type "N" connectors **$39.99**

264 (UHF) Performs from 1.3 to 650MHz, usable to 750MHz. Rated at 1.5KW for 10-seconds and 100W for 10-minutes. 3"w x 3"h x 9"d..... **$69.99**

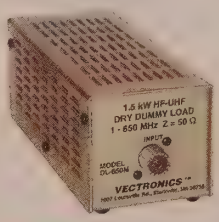
264N With type "N" connectors **$79.99**

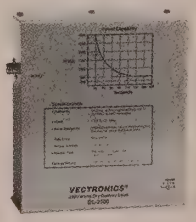
VECTRONICS



DUMMY LOADS

DL-300M **Dry Dummy Load** Simulates an accurate 50Ω antenna up to 150MHz. Test or tune up your transmitter without radiating a signal on the air. Power handling curve rated at 300W for 15 seconds, to 100W for 40 seconds. VSWR <1.3:1 at 150MHz. 5"h x 2"d x 2⅞ "h, 8 oz..... **$44.99**

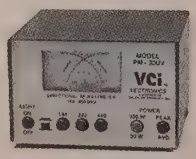




DL-650M **Dry Dummy Load** *(left)* Good all the way up to 650MHz. Power handling curve is rated at 1500W for 10-seconds, down to 100W for 10 minutes. VSWR <1.3:1 at 500MHz..... **$74.99**

DL-2500 **Dry load (High-Power)** *(right)* A fan cooled heavy-duty load for up to 150MHz. Power handling curve rated at 2500W for 1 minute, down to 500W for 10 minutes..... **$179.99**

SWR/POWER METERS



PM-30HF Similar to pic. RMS or PEP forward and reflected power and SWR simultaneously. Lighted cross-needle meter. Covers 1.8-60MHz, 300/3000W ranges. 5⅝" w x 3½"h x 5¾"d, 1.2 lbs..... **$79.99**

PM-30UV *(shown)* Same features as the PM-30HF, but covers 144, 220 and 450MHz bands.... **$89.99**

VFD-VHF **VFD Wattmeter** 50-225MHz, 5 to 300W. Feature a 2 line x 16 character vacuum fluorescent display, tuning and operate modes and a settable VSWR limit. Provides real time peak and hold display of actual power and VSWR every transmission. Select a quick update for the displayed power. The sensor uses large cores that will not saturate. Know that the VSWR has exceeded a preset linit with the alarm indication. Display: 5.75"w x 3"h x 2"d. Coupler: 4"w x 3.5"h x 2"d..... Closeout **$169.99**

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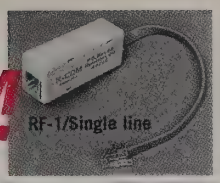


TELEPHONE RF INTERFERENCE FILTERS

Cure telephone RF interference in the most irritating cases even when dealing with transmitters with full legal power output. Use any number of filters with no adverse effect on telephone performance.

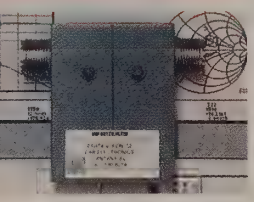
RF-1 For single line equipment including wired and cordless phones, answering/fax machines, modems, etc. Uses standard modular connectors..... **$16.99**

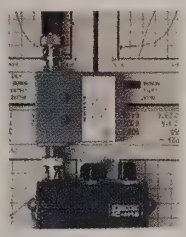
RF-1/2-LINE For 2-line or multi-line, multi-station electronic key phone systems..... **$22.99**

RF-1/COILED For use when RFI enters thru coiled telephone cord between base and handset . **$22.99**

RF-2 Hard-wired, provides a wide range of installations optional to add RFI rejection at a variety of physical/electrical locations in the system; inside jacks, behind wall mounts, etc..... **$10.99**

PAR ELECTRONICS





INTERMOD FILTERS

Solve most intermod or front end overload problems from paging systems, etc. with these asymmetrical, 45-54dB notch filters. Centered on the offending pager spectrum of 152-153MHz, they work effectively with a loss of ≤0.5dB and a 1.25:1 VSWR. Works with dualbanders by providing a low-loss pass-thru of 70cm signals.

VHFDN152 2m base/mobile intermod filter, rated 50W, SO-239 connectors, 2"h x 1"d x 2½"w. **$62.99**

VHFTN152-158 **Triple Cavity** Similar to the VHFDN152 except it places a second notch in the 158MHz pager band in addition to the dual notch in the 152 MHz band. 2½"h x1"d x 3"w..... **$82.99**

VHFDN152HT 2m intermod filter for handhelds BNC connectors, 20W. 1½"h x ¾"d x 2"w... **$68.99**

UHFDN450 UHF intermod filter for base or mobile. Blocks pagers & two-way transmitters that cause 70cm intermod; transparent to 2m .. **$62.99**

UHF-12 12" Belden RG-58/U jumper cable with silver/gold/teflon PL-259's on each end **$9.99**

Nye Viking

020-001 **Low Pass Filter** Install between transmitter and antenna to reduce or eliminate TVI caused by harmonics from transmitters operating from 1.8 to 30MHz Rated 2KW, 5KW SSB peak. Over -65dB attenuation above 57MHz. SO-239 connectors..... **$56.99**

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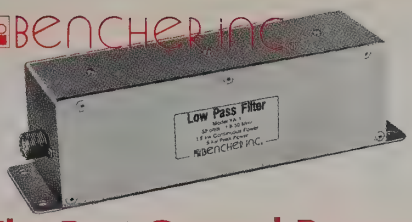

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Check the specs!

YA-1 1kW, 80db attenuation @ 50MHz..... **$75.99**

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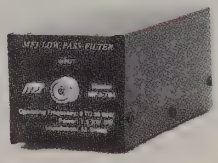
713 **IntermodFighter™** Eliminate intermod in your 2M HT. Three high-Q bandpass filters and two L-sections give razor sharp selectivity to knock out interfering signals below and above 2M. BNC connectors for HT use. Self-contained, and uses a 9-volt battery. To eliminate intermodulation, remove the rubber duck and replace it with the MFJ-713. Re-install the duck – no more intermod! RF tight, rugged aluminum case..... Closeout **$39.99**

704 **50Ω Low Pass Filter** Install between HF transmitter and antenna to reduces TVI from harmonics that fall in the TV band. Handles 1kW from 1.8 to 30MHz **$49.99**



711 **75Ω High Pass Filter** Install at TV or VCR antenna input to reduce or eliminate interference from HF transmitters operating up to 30MHz **$24.99**

RF Inquiry

HI-Q Common-Mode™ Filters For tough RFI problems. Lowpass filters eliminate harmonic-type interference but are not capable of filtering out "Common-Mode" (differential noise energy transfer between transmitter and ground including stray capacitance). For cleaner signals, add an RF Inquiry filter.

• Operating Frequency: 1.8-70MHz • Common Mode Attenuation: -50 to -60db below 250MHz • Insertion Loss: Less than 0.1dB • Impedance: 50Ω • Connectors: SO-239 teflon

CF250E-UHF 250W, .98 x 10 in. 0.5 lb... **$89.99**

CF5KV-UHF 5kW, 2.1 x 12.6 in., 1.3 lb **$124.99**

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BANDPASS FILTERS

Install between your 2m, 220 or 440MHz rig and antenna to reduce strength of out-of-band interfering signals while allowing signals you want to hear to pass through at full strength. Eliminate random squeals, squawks, beeps and strange voices from your UHF or VHF radio caused by intermodulation from strong, nearby pagers, police radio, etc. Also effectively reduces spurious emissions on transmit.

• Hear desired signals even in crowded urban centers with high-powered commercial systems • Design: 2M/220MHz – four helical resonators with aperture coupling; 440MHz – four 1/4-wave linear resonators with aperture coupling • VSWR 1.5:1 • 200W rating • Made of extruded aluminum, copper and brass • 12w"x 3"h x 5"d • 2 lb, 11oz

146-4H Passband: 144–148; Loss <1 dB; Selectivity: –57dB @ 136MHz and –43dB @ 156MHz. SO-239 silver-teflon connectors **$89.99**

145-2H Passband 144 to 146 MHz **$89.99**

223.5-3H Passband: 222 to 225MHz; Loss 1 dB; Selectivity: –33dB at 233 3MHz and –28dB at 233 MHz. SO-239 silver-telfon connectors..... **$89.99**

445-10C Passband: 440-450MHz; Loss 1dB; Typical selectivity: –47dB at 425MHz and –50dB at 456 MHz. Type-N silver-teflon-gold connectors..... **$109.99**

435-10C Passband 430 to 440MHz **$109.99**

Upgrade to type-N connectors on 2m and 220MHz models – add $10 to price; Special Order

AMECO

High Pass Filters Stop TV, FM and VCR interference caused by harmonics or overload from HF amateur radio transmissions, etc. Installs at TV or VCR antenna terminals or connector. Sharp frequency cutoff at 52MHz with 70dB attenuation below 50MHz.

HP-300T (300Ω) or **HP-75T** (75Ω) .....ea. **$12.99**

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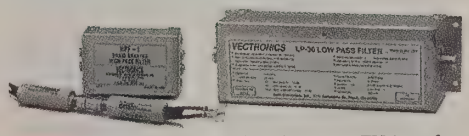

LP-30 *(right)* **Low Pass Filter** Suppress TV interference from HF transmitters. Use between transmitter and antenna or tuner. Up to –70dB attenuation of harmonics falling in TV bands. For 52Ω, up to 30MHz and 1500W RF continuous power .. **$69.99**

LP-2500 Rated for 2.5KW continuous ... **$129.99**

HPF-1 *(left)* **High Pass Filter** Install at TV antenna terminals. Stops interference caused by overload and harmonics from HF transmitters operating below 30MHz. High harmonic attenuation but low loss in the 52-550MHz TV passband. For 300Ω, but balun and Type-F connector are supplied for 75Ω **$24.99**

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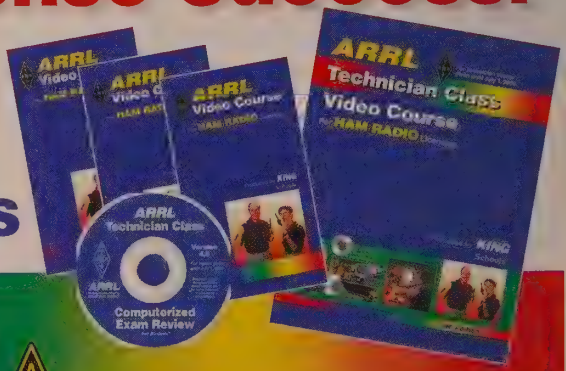

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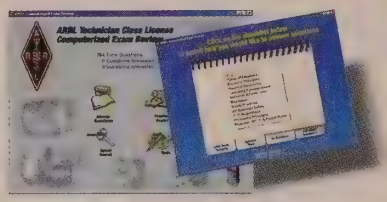

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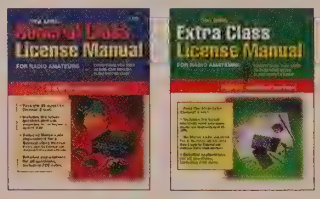

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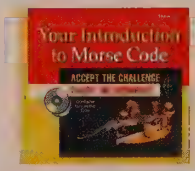

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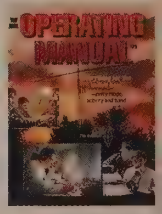

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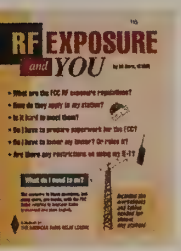

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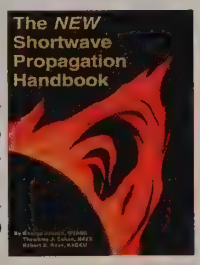

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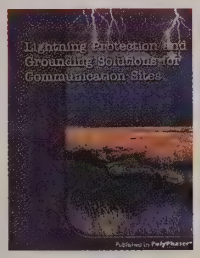

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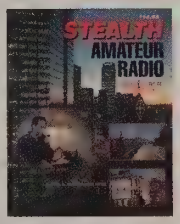

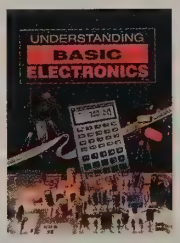

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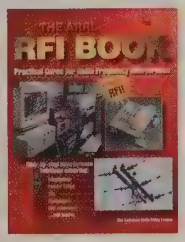

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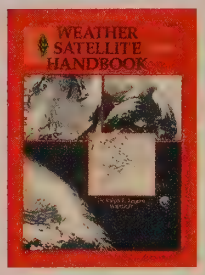

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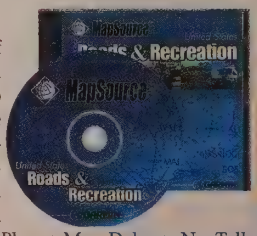

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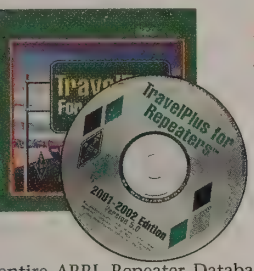

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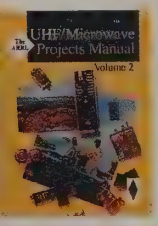

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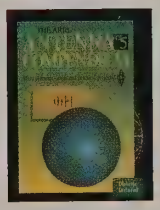

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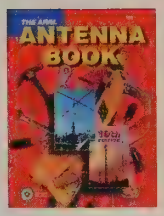

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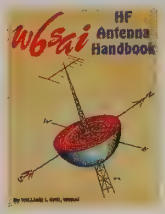

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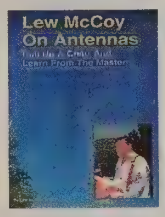

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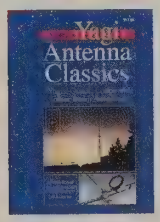

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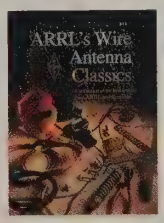

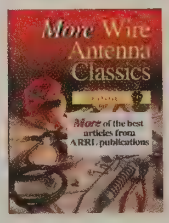

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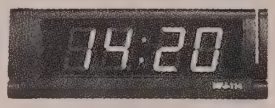

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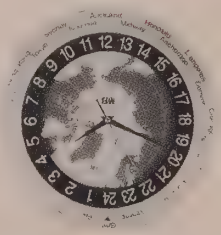

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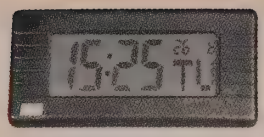

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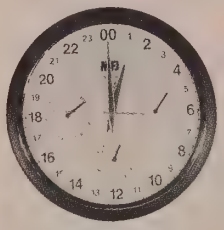

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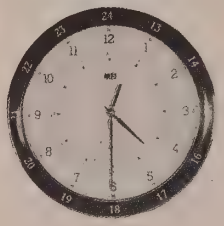

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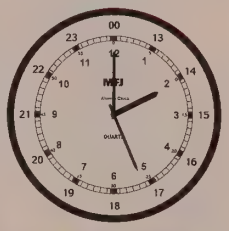

128 US Atomic Wall Clock Huge, 14 inch diameter with 12/24 hour and seconds dials on a white face. Automatically synchronizes to time signals from WWVB. Uses (2) "AA" batteries (not included)..... **$59.99**

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134AT (24-hour), **132AT** (12-hour) See Thru™ LCD Clock Transparent display makes the high-contrast, 1.75" digits appear to float in the air. Very loud alarm with snooze function. Silver-tone, 9"w x 3.5"h. Uses 2 "AA" batt. (not incl.) .... Closeout ea. **$19.99**

152B ThermometerClock™ Shows outdoor/indoor temperature & time. Huge LCD multiple display shows 12/24 hour time and Celsius/Fahrenheit. Auto daily update of min/max temp. readings and memory function that recalls readings during a selectable period. Wall mount or desktop display. Includes outdoor sensor and 10' wire. Requires "AA" batt. 5"h x 2⅜"w x ⅝"d..... **$24.99**

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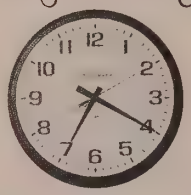

972A *(left)* Battery operated 12-hour time quartz controlled clock with sweep-second hand. Huge 12" dial allows excellent visability in large rooms. Black textured case and clear glass crystal. Uses "AA" battery (not incl.). 14" dia. x 1.75"d.. Closeout **$19.99**

973A *(right)* 24-hour version of 972A **$49.99**

972AD 14" dia., 12/24 hr. wall clock, sweep-second hand. Uses "AA" battery (not included) **$32.99**

STD BLK/GOLD or **STD OAK/GOLD** A framed, lighted world map which is a continuous belt of mylar film in constant motion synchronized with Earth's orbit. Displays current time world-wide, sunrise/set, and current season everywhere via an illuminated pattern • Allows for calculation of time in non-standard zones • Shortwave radio prefixes • Standard model in black or oak with gold trim • 3' x 2', wall mounting..... **Drop Shipped $999.99**

Available by Special Order in numerous trims/finishes, and in 3 other models (with analog 0-60 min. scale).

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Professional Series of astronomical telescopes are engineered with unparalleled structural and optical quality. These top-of-the-line models will give many long years of reliable, dependable use and a lifetime of journeys to the stars. This series is highlighted by a professional quality format: Professional format 1.25" Kellner eyepieces • Aluminum optical tube assembly • High quality glass optic objectives • Full-length, heavy-duty, variable-height aluminum tripods • Clock drive ready deluxe metal equatorial mounting • Pro format 6x30 finderscopes • 6-point finderscope adjustments • Metal access. trays • Pro counterweight system • Fine-adjustment controls.

78-0040 90 refractor • Focal length: 1,000 • 25mm eyepiece • Magni.: 40 • Multi-coated objective lens • Flexible fine tracking cables.... **$439.99**

78-0200 *(right)* 4.5" reflector • Focal length: 900 • 9mm and 25mm eyepieces • Magnifications: 36, 72, 100, 200 • 2x Barlow lens **$349.99**

Voyager® Series Engineered to exacting standards with exclusive features: the first astronomical zoom telescope • Penta mirror technology that yields right to left correct views of the night sky • High quality metal easy-track and metal equatorial mounts • Innovative adjustable aluminum tripods • Exclusive Rotary Power turret eyepieces.

78-9440 *(top)* 60mm refractor • Focal length: 700 • 8, 12.5mm eyepieces • Magni.: 56, 88, 168, 263, 280, 440 • Penta mirror, Easy Track® mount • Adjustable hardwood tripod • Erecting lens **$89.99**

78-9470 *(bottom)* 60mm refractor • Focal length: 750 • Zoom, 8, 15mm eyepieces • Magnifications: 50, 94, 50-150, 250, 470 • Penta mirror • Easy Track® mount • Adjust. tripod **$129.99**

78-9675 *(middle)* 4.5" reflector • Focal length: 900 • 4, 12, 20mm eyepieces • Magnifications: 45, 75, 135, 225, 675 • Clock drive equatorial mount • Adjustable aluminum tripod • 6-point finderscope mount • Fine tracking..... **$229.99**

New Voyager® Quality Dobsonian telescopes with all metal tube assemblies and innovative mounts will satisfy anyone just getting started to the advanced amateur astronomer. The new additions include a precision rack and pinion focuser and are engineered with a 1.25" format.

78-6000 6" reflector • Focal length: 1,200mm • 25mm eyepiece • Magnification: 48 • Dobsonian mount • 6 x 30 Finderscope • 6-point finderscope mount..... **$299.99**

78-8000 Looks the same as 78-6000 • 8" reflector • Focal length: 1,200mm • 25mm eyepiece • Magni.: 48 • Dobsonian mount • 6 x 30 Finderscope • 6-point finderscope mount..... **$399.99**

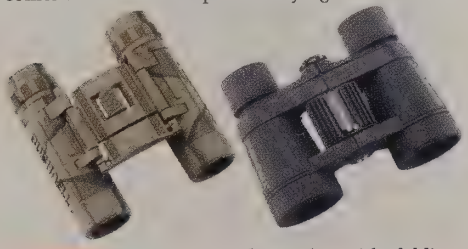
TELESCOPE ACCESSORIES

(See Price Guide to match access. to correct telescope model)

78-0101 1¼", 9mm Kellner eyepiece..... **$29.99**
78-0102 1¼", 25mm Kellner eyepiece..... **$29.99**
78-0103 1¼" format erecting prism..... **$69.99**
78-0105 1¼" format 2x Barlow lens..... **$39.99**
78-0106 Clock drive (DC/battery power) . **$89.99**

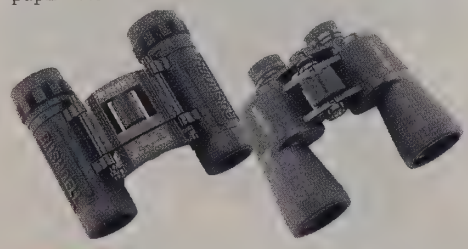
BINOCULARS

Powerview® Truly the "best of both worlds." Contemporary styling and design combined with legendary Bushnell quality and durability. The easy-to-hold and easy-to-use aspect of these binoculars also converge to make Bushnell Powerview binoculars an excellent value for the general and outdoor user. Powerview comes with soft rubber covering and the patented "Insta-Focus®" system. Each binocular comes with a neck strap and carrying case.



13-1226 *(left)* Compact binocular with folding roof prism. Designed in camo. Features include: 12x25 magnification • 240 ft. field of view at 1000 yds. • 2.1mm exit pupil • 9.7oz **$29.99**

13-0430 *(right)* **LiteVision™** • 4x30 magnification • 650 ft. field of view at 1000 yds. • 7.5mm exit pupil • 7.5oz..... **$18.99**

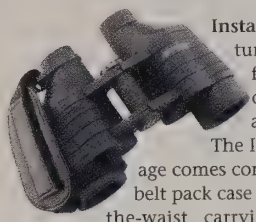


13-1250 *(right)* **InstaFocus®** • 12x50 magnification • Porro prism • 265' field of view (1000 yds.) • 4.2 mm exit pupil • Adapts to tripod • 27oz ... **$59.99**

13-2514 *(left)* Compact, folding binocular • 8x21 magnification • Roof prism • 375 ft. field of view at 1000 yds. • 2.6mm exit pupil • 7oz **$24.99**

Legacy® binoculars feature old world craftsmanship with new world styling. Designed for those who appreciate modern styling, but still want the unsurpassed performance of traditional optics. Legacy includes multi-coated optics, BAK-4 prisms, soft durable rubber armoring and gold trim. Designed with outdoor enthusiasts' needs in mind, the 8x24 and 10x24 compacts are O-Ring sealed and nitrogen purged for water/fogproof protection. This line offers standard, zoom, high power, extra wide angle, and compact configurations along with sleek ergonomic styling, case, and neck strap.

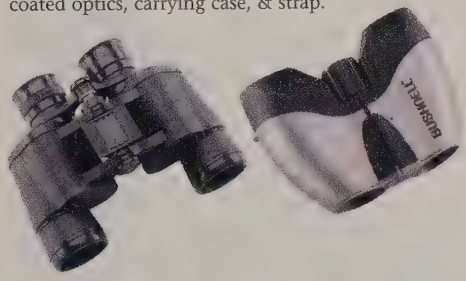
12-1025 Compact, rubber-armored binocular • 10 x 25 magnification • Porro prism • 262' field of view (1000 yds.) • 2.5mm exit pupil • 8.3oz ... **$119.99**



InstaVision® This line features convenient focus free operation, amber-coated optics, & rubber armoring for durability. The InstaVision action package comes complete with a binocular belt pack case for convenient around-the-waist carrying. They also come equipped with Bushnell's exclusive Sportview® handstrap.

17-7351 Wide angle, focus-free binocular • 7x35 magnification • Porro prism • 490 ft. field of view at 1000 yds. • 5mm exit pupil • Handstrap and belt pack included • Adapts to tripod • 21oz.... **$49.99**

Falcon is feature packed and value priced. Perfect for sporting events, sightseeing, nature study, backpacking, concerts and theater. The line includes the Bushnell patented InstaFocus® focusing system, coated optics, carrying case, & strap.



13-0721 *(right)* Compact binocular featuring 7x21 magnification • Porro prism • 340 ft. field of view • 3mm exit pupil • 4.7oz **$39.99**

13-3410 *(left)* **InstaFocus®** • 7x35 maginifcation • Porro prism • 420' field of view (1000 yds.) • 5mm exit pupil • Adapts to tripod • 21oz **$29.99**

NIGHT VISION

26-3652 Night Vision Scope Collects & amplifies existing light, allowing you to see in low-light conditions too dark for the naked eye. Included Infrared Illuminator allows operating even in complete darkness. • 3.6x image magnification • Brightness control • 52mm objective for enhanced brightness • Includes comfortable adjustable hand strap and carrying bag • Rugged construction for travel and outdoor • Requires 2 "AA" batteries (not included) • 3 lbs..... **$199.99**

DIGITAL ELECTRONIC TELESCOPES

All models in this line come with a full length, aluminum, adjustable tripod with accessory shelf.

20060 DS-60 60mm Refractor Ideally suited to beginning astronomers or terrestrial observers • 5x24mm viewfinder • Multi-coated, achromatic objective lens (D=60mm, F=700mm f/11.7) • Two 1.25" eyepieces: MA25mm, MH9mm • Rack-and-pinion focuser with sleeve lock and eyepiece holder • Altazimuth mount with variable-tension locks on both axes • StarNavigator™ PC software (database of over 10,000 celestial objects) • 9 lbs..... **$99.99**

20061 DS-60EC 60mm Altazimuth Refractor *(left)* Identical optically and mechanically to the DS-60 (above), but includes the dual-motor electronic control system (EC). This system comes with a control panel and 4-speed electronic controller. Runs on 10 "AA" batteries (not included) • 10 lbs **$179.99**

20071 DS-70EC 70mm Altazimuth Refractor *(right)* The multi-coated 70mm optics captures 136% more light than a 60mm. • 5x24mm viewfinder • 2 eyepieces (MA25mm, MH9mm) • Dual-motor electronic control system (EC) with 4-speed electronic controller • 2" rack-and-pinion focuser with sleeve lock • 1.25" and 2" eyepiece holders • Achromatic objective lens (D=70mm, F=700mm f/10) • Altazimuth mount with variable tension locks on both axes • StarNavigator™ PC-compatible software (database of over 10,000 celestial objects) • 10 "AA" batteries required • 11 lbs..... **$199.99**

20091 DS-90EC 90mm Altazimuth Refractor *(left)* The ultimate scope for high-definition imaging. Ideal for deep-space observations of galaxies and nebulae. • 6x30mm viewfinder • Two eyepieces (MA25mm, MH9mm) • Multi-coated, achromatic objective lens (D=90mm, F=1000mm f/11.1) • Rack-and-pinion focuser with sleeve lock with 1.25" and 2"eyepiece holders • Altazimuth mount with variable-tension locks on both axes • Cradle ring assembly • Dual-motor electronic control (EC) system • StarNavigator™ PC-compatible software (database of over 10,000 celestial objects) • Ten "AA" batteries required • 15 lbs **$399.99**

20114 DS-114EC 114mm Newtonian Reflector *(right)* The 114mm aperture greatly enhances viewing structural galaxy, nebula or stellar detail. • 6x30mm viewfinder • Two 1.25" eyepieces (MA25mm, MH9mm) • Aluminized and multi-coated primary mirror and matching elliptical flat secondary mirror (D=114mm, F=910mm f/8) • Rack-and-pinion focuser with sleeve lock with 1.25" and 2"eyepiece holders • Altazimuth mount with variable-tension locks on both axes • Cradle ring assembly • Dual-motor electronic control (EC) system • StarNavigator™ PC-compatible software (database of over 10,000 celestial objects) • Ten "AA" batteries required • 18 lbs **$299.99**

ASTRONOMICAL TELESCOPES

0605-04-01 ETX-60AT 60mm Achromatic Refractor *(pictured)* Excellent portable for beginners. Observe all major planets, except Pluto, easily. Also great for birdwatchers or naturalists. • 2 eyepieces (MA 9mm/39x and MA 25mm/14x) • Multi-layer coated, achromatic optical tube assembly (D=60mm, F=350 mm f/5.8) • Internal flip-mirror system for either straight or 90° observing • Fork mount with electric slow motion controls, setting circles and locks on both axes • Electronic control panel • 9-speed, dual-axis motor drive system with Autostar™ control • Sidereal-rate tracking • Requires 6 "AA" batteries • Includes #882 tripod • 6.7 lbs **$299.99**

0705-04-01 ETX-70AT 70mm Achromatic Refractor Identical to above except for optical tube (D=70mm, F=350mm f/5) • 7 lbs **$299.99**

3514-03-04 ETX-90EC 96mm Maksutov-Cassegrain *(left)* The perfect ultraportable field telescope. • 8x21mm erect-image viewfinder • Series 4000 Super Plossl 26mm eyepiece (1.25") • Super multi-coated optical tube assembly (D=90mm, F=1250mm f/13.8) • Internal flip-mirror system for straight or 90° observing • Fork mount with electric slow-motion controls, setting circles and locks on both axes • Electronic control panel • 4-speed (8x, 32x sidereal, 0.75°/sec, 5°/sec), dual-axis motor drive system with electronic hand controller • 8 "AA" batteries required • 9.2 lbs **$495.99**

0515-03-01 ETX-125EC 138mm Maksutov-Cassegrain *(right)* Same as above, but with larger optical assembly (D=127mm, F=1900mm f/15) and 8x25mm right-angle viewfinder. • 19 lbs . **$895.99**

NOCC-3 Cyclops Compact™ Precision optics in the smallest, lightest, full-featured night scope. Unique self-contained device with powerful integrated infared illuminator. • Image Tube Gain: 15,000 • Magnification: 3.1 • FOV @ 1000 yards: 628 ft. • Focusing Range: 8 ft. to infinity • Power: 2 "AA" batteries • 7.2" x 2.4" x 3.2" • 16 oz..... **$199.99**

BINOCULARS

A reputation for excellence. Synonymous with lasting quality. Carefully selected materials, outstanding optics, precision engineering and life long reliability.

Designed with the most modern techniques, their precisely computed prisms and lenses, minutely adjusted optical elements and the famous anti-refection coating give outstanding high contrast image quality over the entire field of view.

Optical components are fitted to be fully impact-resistant and are sealed against dust and humidity. The Zeiss multi-layer "T" coating gives impressive brilliance with superb light transmission, high contrast and excellent low light performance.

All models come with straps, case or soft leather pouch and lifetime transferable warranty.

52 20 47 10x25 B T* DesignSelection Pocket Binoculars High power, center focus, T* coated. Magnification: 10x25 • Field of view at 1000 yards: 285 ft. • Roof prism system • Exit pupil: 2.5 • 7.1 oz ..... Closeout **$349.99**

52 40 07 7x45 B T* DesignSelection *(left)* High twilight, wide-angle. Magnification: 7x45 • Field of view at 1000 yards: 151/453' • Roof prism • Exit pupil: 6.4 • 42.3 oz ..... Closeout **$929.99**

52 40 13 10x40 B/GA T* ClassiC *(right)* Rubber armored, center focus, wide-angle. Magnification: 10x40 • Field of view at 1000 yards: 330' • Roof prism • Exit pupil: 4 • 26.8 oz.. Closeout **$819.99**

52 56 59 8x56 B T* DesignSelection *(left)* Day/twilight, wide angle. Magnification: 8x56 • FOV @ 1000 yards: 132/396' • Roof prism • Exit pupil: 7 • 51.5 oz ..... Closeout **$1049.99**

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TELESCOPES

11011 NexStar 8 All of the standard features of the NexStar 5 with the addition of 8 inch optics with Starbright multi-coating. Offers images twice as bright as a 5" telescope. A four element fully multi-coated reducer/corrector increases the brightness to f/6.3 while reducing focal length by 37% for more visual coverage of wide field objects. Features: 8" aperture • Focal length of 2032mm • Focal ratio of f/10 • Starbright multi-coated 8" Schmidt-Cassegrain optics • Adjustable aluminum tripod • Premium 1.25" Plossl eyepiece • StarPointer™ Finderscope • AC adapter • 32 lbs..... **$1499.99**

11015 Celestar 8 Engineered for optical performance in an affordable, full-featured Schmidt-Cassegrain scope of large enough aperture to do serious deep-sky observing. Features: 8" (203mm) aperture • 2032mm focal length • f/10 focal ratio • 6x30 finderscope • Standard 1.25" accessories include: 25mm SMA eyepiece (81x), Star diagonal and visual back • Fork mount and wedgpod • 41 lbs..... **$1099.99**

11032 NexStar 5 Easy to set-up – no need to polar align, just set it on a table top. Using the hand control you can select a catalog, change the slew (motion) rate, get information on an object, or simply tell if an object is visable. The NexStar's database contains over 18,000 objects including all of the popular catalogs. Comes with regular tripod (93593 deluxe tripod optional accessory). • 5" (127mm) aperture • Focal length of 50" (1250mm) • Focal ratio of f/10 • 6x30 Finderscope • 25mm Plossl eyepiece • 25x camera • Schmidt-Cassegrain optics • Battery operated motor drive • 11" optical tube • 17.6 lbs **$1149.99**

11051 G-5 An ultra-portable telescope with optics made in the U.S.A. Serious performance, razor sharp images. Single axis motor drive operates on four D-cells and allows automatic tracking of celestial objects. Features: 5" (127mm) aperture • Focal length of 1250mm • Focal ratio of f/10 • 6x30 Finderscope • 25mm (50x) SMA 1.25" eyepiece • 1.25" eyepiece • 1.25" 90° diagonal • Multi-coated Schmidt-Cassegrain optics (U.S.A. made) • Battery operated motor drive • German EQ mount with adjustable height • 24 lbs..... **$749.99**

11052 NexStar 8 GPS The ultimate in "go-to" technology and astro-imaging, this 8" Schmidt-Cassegrain boasts an integrated GPS & electronic compass, combined with the NexStar™ system. So advanced that as it turns on, the GPS and compass system automatically points to the first alignment star. • Auto guider port • 2 auxiliary ports for expandable accessories • PC port/RS232 compatible • GPS align mode • 2000mm focal length (f/10) • 5-step multi-layer StarBright® coatings • 40mm NexStar Plossl (50x) • 9x50 Finderscope • Fastar compatible • External 12V DC • AC adapter included..... **$2499.99**

21072 Firstscope 80 EQ WA A wide angle, rich field scope with a short tube. Easily captures breathtaking, wide views of large deep-sky objects. German equatorial mount and tripod. Super portable for easy traveling. • 80mm (3.1") aperture • 400mm focal length • f/5 focal ratio • Fully multi-coated optics • High quality 6x30 Finderscope • Standard 1.25" accessories include: 25mm SMA eyepiece (16x), Focuser & 90° diagonal • Adjustable wood tripod with accessory tray • 13 lbs Closeout **$249.99**

22062 NexStar 60GT Views of the lunar landscape, phases of Venus, Mars resolved as an orange disc, Jupiter and its 4 moons, Saturn with its rings plainly visible, some deep sky objects, plus terrestrial views. Comes with a fully-computerized hand control with database of over 4,000 objects. Includes three 1.25" eyepieces for magnifications of 35x, 70x and 175x. With its pre-assembled, adjustable aluminum tripod, the NexStar 60GT can be up and ready to use in a matter of minutes. A Star Pointer finderscope with red LED makes centering a breeze. • 60mm (2.4") diameter refractor • Focal length of 700mm • Focal ratio of f/1 2 • 1.25" star diagonal • *The Sky* Level I CD-ROM • 9.5 lbs..... **$249.99**

22082 NexStar 80GT With an 80mm aperture and 3.25° field of view, the 80GT is capable of capturing the largest deep-sky objects. Provides 80% brighter views than 60mm scopes. This short-tube, 400mm focal length, refractor telescope has 16x (25mm) and 40x (10mm) magnification 1.25" SMA eyepieces. • 80mm (3.1") diameter refractor • f/5 focal ratio • Complete "go-to" computer hand control • Star-Pointer Finder-scope • 1.25" star diagonal • *The Sky* Level I CD-ROM • Adjustable aluminum tripod with accessory tray • 11 lbs..... **$349.99**

31034 Tabletop 76 Small, but powerful, this ultra portable telescope is ideal for traveling and quick set-up. The handy but sturdy table top mount provides steady viewing. Features include: 76mm (3") aperture • 600mm focal length • f/8 focal ratio • Standard 0.96" accessories include: 4mm SR (150x), 20mm H (30x) and 2x Barlow eyepieces • 5x24 right-angle Finderscope • 15 lbs..... **$99.99**

31052 Firstscope 114 Premium A high quality, economical telescope w/superb optical system housed in glossy black metal. The stable equatorial mount has setting circles and slow motion controls on both axes for easy, smooth tracking. Features include • 114mm (4.5") aperture • 900mm focal length • f/8 focal ratio • 6x30 Finder-scope • 1.25" Focuser with 0.96" adapter • 20mm Plossl and 10mm SMA eyepieces • Sturdy, adjust. wood tripod with accessory tray • 19 lbs..... Closeout **$299.99**

31056 C150-HD Mounted on a rigid CG-4 equatorial mount. Counter-weight, latitude scale, setting circles and slow motion controls on axes are standard. Features include: 150mm (6.0") aperture • Focal length of 1000mm • Focal ratio of f/7 • Stan-dard 1.25" accessories include: 20mm Plossl eyepiece (50x) and Focuser • 6x30 Finderscope • CG-4 EQ mount • Sturdy, adjustable metal tripod with accessory tray • 41 lbs..... **$449.99**

31142 NexStar 114GT Computer compatible Newtonian reflector with a compact design and exceptional light-gathering ability. • 114 mm (4.5") diameter • 1000 mm focal length (f/9) • Starpointer™ finderscope • 25mm (40X) and 10mm (100X) SMA eyepieces • Motorized mount • Computerized hand controller with "go-to" database. Includes *GuideStar*™ software to use with your personal computer, fully assembled adjustable aluminum tripod, battery pack and *The Sky Level 1* CD-ROM..... **$439.99**

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LAB GRADE MICROSCOPES

4020 Dissecting Microscope This provides an introduction to the world of micro-scopy. It uses a 45° inclined, 360° rotatable mono-cular head which can move up and down on the metal pillar for small or large item viewing. The eyepiece is a 10x-18mm with a 4x-58mm objective, giving 40x power. The all-metal unit comes with a 60mm black-and-white viewing plate and smooth rack and pinion focuser..... **$79.99**

4030 Educational Microscope Feature-packed and a great educational tool. It has a fully coated optical system, with H10x and H12.5x eyepieces and 35mm 4x, 10x, 40x objectives giving powers of (40x, 100x, 400x) 10x and (50x, 125x and 500x) 12.5x. This unit uses positive click stops on the turret, a five aperture diaphragm, a plano-concave 50mm mirror, and a smooth rack and pinion focuser with a safety rack stop **$119.99**

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4050 Biological Microscope Using fully coated optics, with a mechanical tube length of 160mm, its achromatic objectives promises great observing sessions. The unit has a monocular 45° inclined, 360° rotatable head, positive click stop nosepiece with three objectives, 4x, 10x, 40x, a metal 110mm x 120mm stage and a five aperture diaphragm. It uses coarse and fine focus with electrical illumination with a tungsten 20w bulb and .65 single lens condenser. Powers are 40x, 100x and 400x using the 10x eyepiece **$199.99**

SPOTTING SCOPES

50025 30mm Mini Brass Spotting Scope A unique, lightweight and versatile spotting scope with a magnification of I5x and a total weight of just 4 ounces! This special spotting scope has an attractive black finish with brass accents and comes with a mini tripod. Fully coated optics, remarkable 3.5° field-of view. For traveling, this ultra compact spotter can't be beat and it comes with a case for secure transporting. It also makes an excellent gift for tabletop or desk display. • Fully-coated optics • Extraordinarily compact • Tripod and carrying case included **$59.99**

52200 *(top)* **60mm Pro Zoom Spotting Scope** This powerful spotting scope's large 60mm aperture makes it perfect for bird watching, photography, nature study, hunting, scenic observing – any type of terrestrial observing. The carefully crafted, multi-coated optics provide excellent contrast and clarity, and the lens hood that comes standard reduces glare. The zoom and focus controls are exceptionally smooth, convenient and easy to use. The ability to zoom from 15 to 60 power with speed, control and precision means you'll be able to focus on and follow interesting subjects with ease. • Multi-coated optics • Power range zooming from 15 to 60 power • 24' near focus at 15 power • 15mm eye relief at 15 power • 30° field of view at 15 power..... **$199.99**

52211 *(bottom)* **60mm Wildlife Zoom Spotting Scope** A great all-around optic designed to perform well in a range of viewing situations. Great for bird watching, observing nature and long distance spotting. The focus and zoom controls are easy to use and well placed for fast, convenient image acquisition. It offers long eye relief of 33mm at 15 power. With fully coated lenses, it's totally reliable and an excellent performer. • Power range that zooms from 15 to 45 power • Near focus: 42' at 15 power • Field of view: 2.25' at 15 power • Mini table tripod and carrying case included • 25 oz **$169.99**

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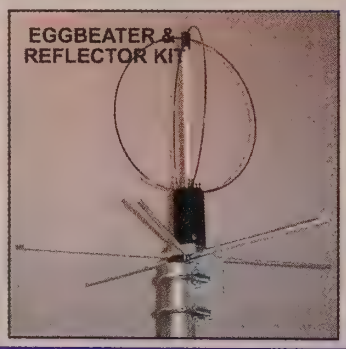
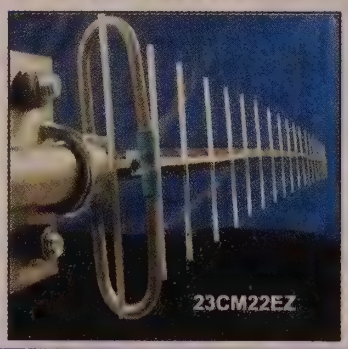
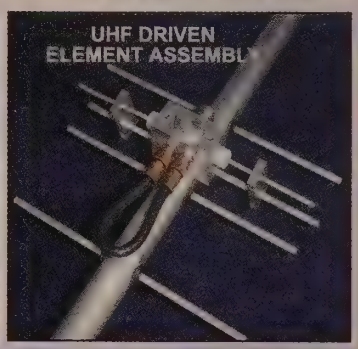
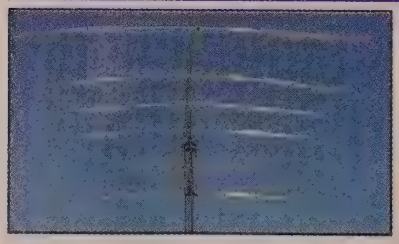
We have always offered performance and we have held that standard as our line grew. We continue to expand our line with innovative, longer lasting, trouble free antennas. In some models we bridge from amateur to commercial notably with our 23CM22EZ and EGGBEATER antennas. You have to look long and hard to find this much high performance variety !

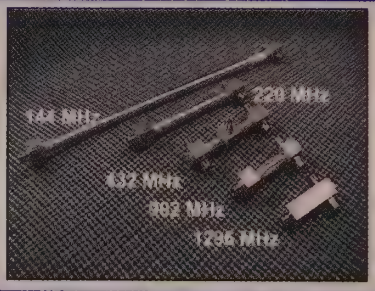








* NEW KT36XA TRIBANDER *



See the Price Guide for more products or check out the M² Website at www.m2inc.com

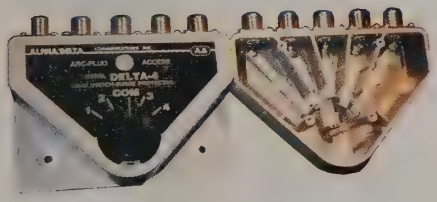
AES
Order Toll Free at 4 Locations Nation-Wide 1-800-558-0411 WI
Browse Our Store On-Line at www.aesham.com

Why do I need Alpha Delta Protection?..

Dangerous static charges are developed from thunderstorms, high wind driven snow or desert sand, and have been measured to 1,000s of volts; so potent, they can actually puncture the dielectric of unterminated coaxial cable. Modern solid-state transceivers and other equipment in your hamshack are very vulnerable to these high-voltage charges and you should take every precaution to protect equipment from serious damage... and, Alpha Delta can help!

Alpha Delta's Arc-Plugs used in their coax switches, surge protectors and DELTA-C center insulator "bleed off" slow rising static electricity charges from the feed line, routing them harmlessly to ground. This is far more effective than DC grounded baluns or chokes, which can be "popped" by static charges. Even as effective as these devices are, you still need to pay attention to proper grounding procedures as outlined in the ARRL Handbook and other technical publications.

Lightning Surge Protected 2 & 4 Position Coax Switches



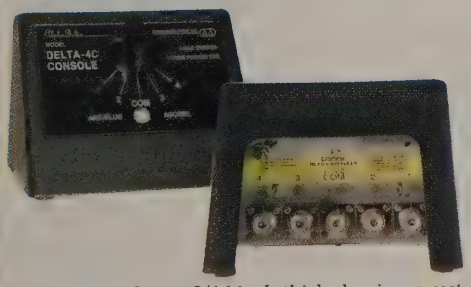
An extremely high quality custom design featuring a cast aluminum housing with constant impedance micro-strip cavities which provide outstanding low-loss, high isolation performance through the UHF frequencies.

A solid positive detent roller bearing switch snaps positively into each position. An Alpha Delta **Arc-Plug™** Cartridge provides continuous surge protection for the antenna in use and at the same time the unused antenna circuits are automatically grounded to reduce antenna interaction, noise and the effects of lightning. Whether an antenna is switched in or out, you're protected.

If needed, the Arc Plug™ is easily replaced from the front without disassembly. Two and four position models available, both handle full legal power.

DELTA-2 2-position coaxial switch with SO-239 connectors, rated for up to 500MHz..... **$49.99**
DELTA-2/N 2-position coaxial switch with N-type connectors, rated for up to 1.3GHz..... **$64.99**
DELTA-4 4-position coaxial switch with SO-239 connectors, rated for up to 500MHz..... **$79.99**
DELTA-4/N 4-position coaxial switch with N-type connectors, rated for up to 1.3GHz..... **$89.99**

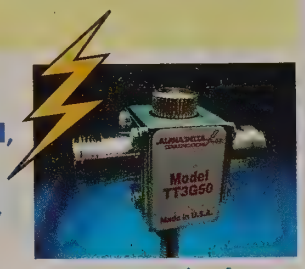
Surge Protected Console Coax Switch



Built into a heavy 3/16 inch thick aluminum cast console weighing 2-3/4 lbs. Attractive, no nonsense design sits conveniently right on the operating desk and stays put. The switch is the same as the Delta-4 4-position models above – micro-strip cavity, positive detent switch, high isolation, Arc-Plug™ surge protection and grounding of unused positions.

Console DELTA-4C w/SO-239 connectors ..**$139.99**
Console DELTA-4CN with N connectors... **$149.99**

Low Loss, Broadband, Coax Surge Protector



UL listed – Provides greater protection for your equipment from lightning and static charges much more effectively than the lower cost air-gap types.

The heart of this protector is an **Arc-Plug™**, which consists of two electrodes hermetically sealed in a gas filled ceramic cylinder. Acting like a voltage dependent switch, the Arc-Plug™ can repeatedly carry large currents for brief periods of time. If an excessive voltage appears on your feedline line, due to lightning and static charges, the Arc-Plug™ is activated forming a momentary arc to ground, protecting your valuable equipment from damage.

After repeated zaps the Arc-Plug™ may need replacing. It's indicated if your receive is suddenly down or the feedline VSWR has increased. The top mounted "O" ring sealed knurled knob allows replacement without tools and without removing the protector from the circuit.

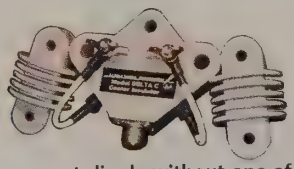
If you are running control voltages through the coax, the impedance compensated thru-line cavity design allows it pass thru, instead of having to "wire around" as with some other DC-blocked designs.

Frequency Range: DC thru 3 GHz – better than narrow band DC blocked or stub designs. **Typical Insertion Loss:** 0.1dB @ 1 GHz; 0.2dB @ 2 GHz; and only 0.5dB @ 3GHz.

ATT-3G50 N Females, 3.0GHz (200W)..... **$59.99**
ATT-3G50U UHF Females, 500MHz (200W) . **$49.99**

2KW versions of both models available at no extra cost; add HP suffix to the model number.

Antenna Hardware Kit with Protection



Don't assemble your next dipole without one of these CENTER/END insulator combos!

Designed for strength, and to provide equipment protection with a built-in replaceable **SEP Arc-Plug®** Static Electricity Protector. Ideal for dipoles, Vees, zepps and all kinds of SWL receive antennas. Feeds with either coax or balanced line. Rated for full legal power. Both the **DELTA-C** Center Insulator and **DELTA-CIN** End-Insulators are made from an extremely rugged UV and RF resistant DELTALLOY material so tough it's virtually unbreakable. Stainless steel hardware is used in the center insulator, and all internal connections are hard soldered.

DELTA-C Antenna hardware kit Contains DELTA-C Center insulator, (2) end-insulators and a SEP ARC-PLUG Protector **$29.99**
DELTA-CIN End-insulators (separate)..... ea. **$1.99**

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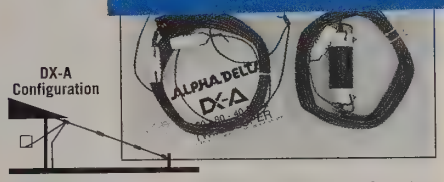
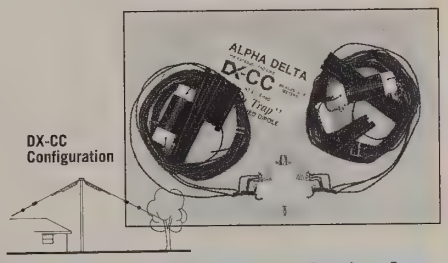


DX-A 1/4-wave Twin Sloper – A top performing 160, 80 and 40 meter DX antenna. Combines the DX firepower of the 1/4-wave sloper with the wide bandwidth of a 1/2-wave dipole. The legs are 67 and 55 ft. long and installs like an Inverted-V with the ground return thru tower or down-lead **$59.99**

DX-B 1/4-wave DX sloper – A single wire with high performance on 160, 80, 40 and 30 meters in a limited space. Requires only 60 ft.space for amazing DX performance with the feed-end at 35 ft. and the low end only 8 ft. above ground.... **$69.99**

The following dipoles are factory assembled using insulated #12 high-strength copper wire and stainless hardware, DELTA-C static protected center insulator, DELTA-CIN end insulators and 50 ft. nylon rope. Unique "ISO-RES" inductors replace traps and capacitors allowing full power operation. Direct 50 ohm coaxial feed.



Shortened Multi-band Dipoles

DX-CC Dipole or Inverted-V – Covers 80-40-20-15-10 meters. Overall length is 82 ft **$119.99**

DX-DD Dipole or Inverted-V – Covers 80-40 meters. Overall length is 82 ft..... **$89.99**

DX-EE Dipole or Inverted-V – 40-20-15-10 meters. Also covers 30-17-12 meters with wide range tuner. Overall length is 40 ft..... **$99.99**

DX-LB Dipole or Inverted-V – 160-80-40 meters, overall length 100 ft. Typical 2:1 SWR bandwidth: 160M/20kHz, 80M/40kHz, 40M/300kHz. Full band coverage with wide range tuner. **$119.99**

DX-LB PLUS Dipole or Inverted-V – Same as DX-LB, but covers 160-80-40-20-15-10M..... **$149.99**

The following dipoles are factory assembled using #12 insulated high-strength solid copper wire, CIN end insulators, Delta-C static protected center insulator and 50 ft. nylon of support rope. Direct 50Ω coaxial feed.

Full-Size Monoband Dipoles

DX-80 3.5 MHz (75-80M), 134 ft. long **$49.99**
DX-40 7 MHz (40M), 67 ft. long..... **$39.99**
DX-20 14 MHz (20M), 34 ft. long..... **$39.99**

CELEST

LAB GRADE MICROSCOPES

4020 Disse
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DELTA COMMUNICATIONS, INC.

AA

OUTbacker

HAM • MARS • CAP • MARINE/ITU
WIDE BANDWIDTH • LOW VSWR
NO COILS – JUST CHANGE THE TAP!

Antennas featuring...

Performance and Convenience...

The Outbacker™ – Constructed of fiberglass with pre-tuned copper helical windings and covered with smooth epoxy-resin and a coating of polyurethane for strength, and durability. The mounting ferrule is nickel-plated brass with a standard 3/8" x 24 stud.

Bands are changed manually by simply plugging the unique OUTBACKER "Wander lead" into the proper tap.

Frequency coverage is broadbanded but the top whip section is adjustable, allowing tuning for the lowest VSWR .

Sleek black finish, 8 models with optional spring/base, mount and cable.

Outbacker Model	Description	AES Model	Price
OUTBACKER PERTH	75-10M + WARCs, 150W P.E.P; 7.5' tall; 3' stinger retracts into the 4' mast. Most efficient for HF mobile	Perth	$289.99
OUTBACKER PERTH PLUS	75-10M + 6 & 2M; 6 ft. tall; Perfect for HF + VHF radios: IC-706 Series, DX-70T Series, FT-100, etc.	Perth Plus	$299.99
OUTBACKER 8	75-10M, 300W P.E.P; 6 ft. tall	OB-8	$279.99
OUTBACKER HP	75-10M; HIGH POWER – 500W P.E.P rating; 6 ft. tall	OB-8HP	$299.99
OUTBACKER SPLIT	75-10M, 300 W P.E.P; 6 ft. tall; Breaks down into two 3 ft. sections, comes with carrying pouch	OB-S8	$299.99
OUTBACKER TRI-SPLIT	Same as OUTBACKER SPLIT except breaks down into three 2 ft. sections, storage pouch included	OB-8TRI	$329.99
OUTBACKER MARINER	Covers ITU Marine: 2.182, 4.1, 6.2, 8.2, 12.4, 16.5, & 22.1MHz and Ham bands: 75, 40, 20,17 &10M	OB-M	$429.99
OUTBACKER STEALTH PLUS	75-10M + 6 & 2M; 4 ft. tall, 150W PEP; Perfect for use w/HF + VHF radios: IC-706, DX-70T, FT-100.	Stealth PLUS	$269.99
OUTBACKER Spring/Base	HEAVY DUTY; Nickel/zinc plated; 3/8-24 threads; SO-239 connector; Requires 1/2" mounting. hole	OB-SB	$99.99
DIAMOND K-4003/8C	Diamond 3/8" x 24 thread trunk-lip mount with 6 ft. coaxial cable for all OUTBACKER models	DIA K400-3/8C	$69.99
DIAMOND C-110	Diamond 10 ft. extension cable for K-400-3/8C trunk-lip mount	DIA C-110	$14.99
OUTBACKER JOEY	QRP, 20W HF/VHF portable system; 80-2M, + 30, 17 & 12M; 30 in. shaft, 20 in. stinger	JOEY	$249.99

The Outreach™...$399.99

A complete efficient portable antenna system to meet the needs of those who have limited space or are deed restricted. Ideal for backyard, patio, woods or field day. Covers all bands from 160 thru 10 meters, providing an exceptional level of performance. The perfect companion for the Outpost Tripod mount. Black, heavy duty epoxy finish looks great! The slim design makes it nearly invisible to your neighbors.

- Covers all amateur bands, 160 thru 10 meters
- Overall Length: 12 ft.
- Weight: 4 lbs.
- Exceptional performance! 10, 12, and 15 meter bands are electrical 5/8 wavelength – all bands are center loaded for peak performance.
- Rated at 300W PEP.
- Utilizes the time proven OUTBACKER® band tap system.
- Split 8 ft. shaft and 4 ft. stinger
- Breaks down into (2) 4 ft. sections for portability; comes with a protective carrying case.
- Terminates into a standard 3/8" x 24 threaded base.

The Outreach 500™ ...$439.99

The mechanical specifications are exactly the same as for the standard Outreach model, however it does not cover 160 meters, but includes 6 meters in addition to all other HF bands including the WARC bands. A band tap is provided for both 80 and 75 meters, allowing coverage of the entire 3.5 to 4.0 MHz range. Power handling capability has been increased to a robust 500W CW and 600W PEP SSB.

The Outrunner™ ...$329.99 Closeout

It's like the standard Outreach model, except it's a single 6 ft. shaft (instead of 12 ft.) with a 3 ft. stinger. Coverage is 160 thru 10 meters including WARC bands, and lower rated at 150 Watts PEP. The base terminates into a standard 3/8" x 24 threaded base.

ALP Outpost™... $199.99
Tripod/Ground Coupler Mounting System

- The fold-out legs and blades act as a large capacitor to improve ground coupling for a better impedance match and antenna efficiency
- Matches the base impedance of all Outbackers
- Compact, fold-up design sets up quickly. Stands alone, no digging, no holes, no concrete. Collapse it, throw it in the trunk, take it with you!
- Fold-over top bracket. Mobile-type mount with SO-239 connector accepts a standard 3/8" x 24 stud. Antenna is easily removed or folded down for changing bands, or to be out of view when not in use.
- Constructed of aircraft 6061-T6 aluminum, stainless steel hardware and wing nuts. All assembled, no tools required. • Weight: 18 lbs

outbacker

Outbacker Joey...$249.99

The "Outbacker Joey" is an efficient QRP HF/VHF Portable Antenna System that will really enhance the portable performance of your QRP rig

Perfect for the FT-817, 2020, K1/K2 & Similar Rigs!

Utilizes the famous Outbacker band tap system. Change bands without having to remeasure or reset the stinger – unlike some other designs.

Covers the complete HF/VHF range from 80– 2M, including 30, 17 and 12M. It even has separate taps for 80 CW and 75 SSB. Each band hand tuned at Outbacker for peak performance. Rated at 20W, all modes.

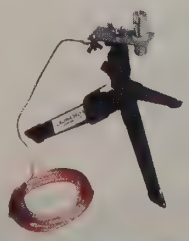
Even though it's a smaller antenna, the Joey maintains the mechanically rugged, reliable design all Outbackers are known for. This one won't come apart with field or backpack use. When not in use, the Joey easily jumps back in its included cloth pouch for easy transport.

The unique design, with its optimum shaft length to stinger ratio and careful band tap placement, radiates an extremely effective signal. It compares favorably to some other Outbacker models. Shorter shafts used in some other designs can be very inefficient, wasting more of your precious QRP Watts.

When we say "Antenna System," we really mean it! The Joey system comes complete with a durable copper braid counterpoise, and is terminated in a PL-259 connector and includes a 90° PL-259/SO-239-adapter so the antenna will fit directly on the back of the FT-817.

The antenna has a 30 inch shaft and a 20 inch stinger when fully extended, and weighs just over 1 lb.

MicroMount Lightweight Miniature Desktop Tripod for the Joey – only 8 in. tall (fixed) with a 12 in. diameter foot print. An articulated pan head mount allows the JOEY to be adjusted to any angle. Very rugged, made of tough fiberglass-reinforced plastic. The MicroMount comes with a 12" velcro strap so it can be mounted on posts, tree branches, fences desk or picnic table tops, etc. Complete with mounting adapter and 12 ft. counterpoise.



ALP MICROMOUNT... $49.99

KENT Paddles by ALPHA DELTA

Titanic Key

Reasons for Buying KENT Paddles:

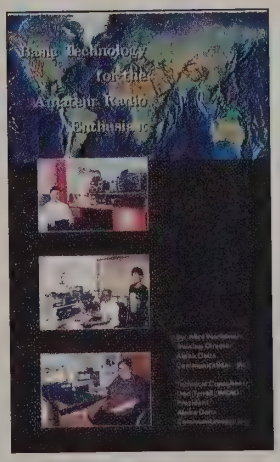
- Delicate, smooth feel due to sealed ball bearings instead of simple spring-loaded pivots • Free movement, minimum friction sideplay
- Precise gap alignments with instrument knurled heads on fine pitched screws and locking nuts.
- Rugged components made from machined, polished solid brass contained within a permanent brass housing.
- Silver contacts • Non-slip feet • Weighted for stability • Paddle models use heavy steel bases
- Designed and produced by *R.A. Kent Engineers, England.* Imported, fully assembled and tested by *Alpha Delta.*

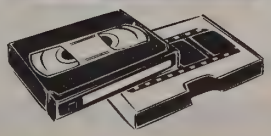
Model SK-1 Straight Morse Key (top) **$129.99**
Model SP-1 Single Paddle Morse Key (bottom/left)..**$139.99**
Model TP-1 Twin Paddle Morse Key (bottom/right)..**$149.99**

Robert Kent of Kent Engineers in England did meticulous research on the code key that was used on the Titanic, and has produced a beautiful crafted machined brass, working replica to be marketed by Alpha Delta. Each key has a serial number, a matching certificate telling of the event, and are individually signed by Kent for authenticity. The key provides extremely smooth operation and is a great addition to any station or collector's desk.

TK-1 Titanic Morse Code Key ... **$149.99**

Basic Technology for the Amateur Radio Enthusiast





A simple, straight forward Video and Book program that takes you on a journey, explaining the wonderment of the amateur radio hobby.

The 24-minute video illustrates radio fundamentals, and explains everyday electronic terms you'll hear relating to the hobby. You will even go with a miniature "tour guide" on a walk through a receiver printed circuit board. The guide will show you how amplification, power supplies, radio frequency and audio amplifiers and other parts of a radio work, and an explanation of what "semiconductors" are all about. Neither the video nor the book get into math or formulas – it's been kept simple.

The book is designed for the non-technical person interested in joining the hobby or the amateur operator who would like to know more about "what's behind the dials" and explains the fascination of the hobby in detail.

ALP BASIC TECH **$39.99**

MFJ ENTERPRISES, INC.

HT RANGE EXTENDERS

1714 Long Ranger™ 2M Halfwave For really long range, this MFJ end-fed half-wave is hard to beat. It out performs a 5/8 wave on a handheld because it does not need a ground plane. The 1714 is shorter (40" extended), lighter, has more gain & places less stress on your antenna connector. When collapsed (10.5"), it performs like a rubber duck **$16.99**

1712 Dual Bander™ 2M & 440MHz New dualband handheld or separate units? One antenna fits all. It's 1/4 wave for 2m and 5/8 wave with gain for 440MHz. 7.25" collapsed, 19" extended **$14.99**

1710 Pocket Linear™ 3/8 Wave, 2M Carry in your pocket like a ballpoint pen. When using your rubber duck, on the fringe and noisy, put on the Pocket Linear, extend to 24.5" and carry on your QSO. Pocket clip. 5.25" collapsed **$9.99**

RUFFRIDER™ MOBILE ANTENNAS

(mounts not included)

This series features quality construction using precision machined components. Designed to battle the elements, rugged rides and highway abuse.

Dual band 144/440MHz mobiles have stacked stainless steel elements with high-Q phasing coils resulting in outstanding gain. Phased radiators flatten radiation patterns and concentrate transmit power at the horizon for maximum distance.

All models are factory tuned for SWR less than 1.5:1 and have 50Ω impedance. Each comes w/SO-239 base, but also includes a **FREE** NMO adapter.

1402 Junior 16½" ant. fits in any garage on any vehicle. 3dB gain on 2M, 5.5dB gain on 440MHz. Handles 100W. No fold-over **$34.99**

1412 High Power Only 40" long but handles a full 200W. Great for high power mobile & amp. 3dB on 2M, 5.5dB on 440MHz **$49.99**

1422 High Gain 41½" long giving you extra gain with little increase in height. Handles 150W. 3.2dB on 2M, 5.7dB on 440MHz **$49.99**

1432 Highest Gain Tall 62½" brute gives you a whopping 5dB gain on 2M, 7.6dB gain on 440MHz. Handles 150W **$69.99**

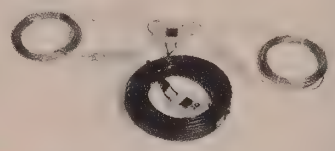
RUFFRIDER™ MOBILE MOUNTS

Super heavy duty antenna mounts with SO-239 base. Use adapter for NMO. Includes 10 ft. of low loss coaxial cable with PL-259 connector. Bases are heavy duty and super rigid to reduce SWR flutter due to wind vibration. Double Allen set screws fasten the radiator and a specially treated center pin provides excellent electrical connection. Allen wrenches, protection caps and locking screws included.

340 Mirror/Luggage Pipe Clamp Mount Mounts on support rod of mirror, luggage rack or spare tire carrier of a truck, van, RV or SUV. Mounts on any horizontal, vertical or angled rod/pipe up to 5/8" in diameter. Secures VHF, UHF and medium HF antennas even at highway speeds. Convenient thumb and finger turn knob makes fold-over operation quick and easy. Locks in 12 different positions **$34.99**

345 Trunk/Hatchback Lip Mount Mounts to any lip on your vehicle. Extra-wide 4" lip and large reinforcing tabs on each side safely distributes the load. Secures large VHF, UHF and medium size HF antennas even at highway speeds. Scratch-proof rubber guard protects vehicle's finish **$34.99**

1910 Telescoping Fiberglass Mast *(right)* Great for portable and temporary use – traveling, camping, from hotels, hamfests, field day, DX-peditions. Use to construct loops and quads. Pull out each section and twist to lock, strong fiberglass, flexes to resist breaking. Extends to 33 ft. and collapses to 3.8 ft. Bottom section 1.75 in. diameter. 3.3 lbs **$79.99**



1778 MFJ's G5RV Antenna Covers 80–10M bands and 160M operated as a Marconi with a tuner and ground connection Shorter that an 80 meter dipole – 102 ft. long. flat top with a length of twin-lead matching section. Requires 50Ω coaxial feed line. Use as an inverted vee or sloper where space is a problem. Full legal power limit. Coax cable not included. **$39.99**

NEW

1899T Walkabout™ Multi-band Telescopic Antenna Designed specifically for the Yaesu FT-817 multi-mode HF/VHF/UHF portable transceiver or other QRP portables. Covers all bands (including WARC bands) from 80 to 6 meters. Power rating is 25 Watts. When fully extended it is just over 5' long and is fitted with a BNC connector. Band changing is achieved by plugging a lead into the appropriate socket on the base coil, and fine tuning using the 10-section telescopic whip. The whip unscrews from the base matching coil, so, collapsed, the antenna measures only about 8 inches **$129.99**

Service Questions?
414-358-4087
Milwaukee, WI

COMET™

HF/VHF/UHF MOBILE ANTENNA

For radios that operate HF/6M/2M/70cm

UHV-6 Designed for 6 and 2M and 70cm basic operation without tuning. Additional coverage for 40, 15 and 10 meters may be added by installing the supplied coils for those bands. Coils for 20 and 17 meters are optional. Choose either one, two, or three coils and add one to the top, and one or two to the side, in any combination. Automatic bandswitching. Each HF element tunes independently without effecting VHF/UHF.

Only 7'2" tall with the 40M coil attached to the top. A unique fold-over hinge pivots approximately 5 inches from the bottom for garaging, entering parking structures, etc.

Installs on any standard SO-239 (PO) type mount; no special brackets are needed. Several duplexers/ triplexers are available for all multi-band radios. – *see the index under duplexers for selection* **$149.99**

L-14 20M coil **29.99**

L-18 17M coil **29.99**

CF-530 1.3-90/125-470MHz duplexer **69.99**

CF-706A 1.3-56/75-470MHz duplr **69.99**

CA-52HB4 Wide Band 6 Meter Beam • HB9CV, 4-element • 50MHz band frequency • 50Ω impedance • <1.5:1 (50-54 MHz) VSWR • 10.4 dBi gain • Half power angle <54° • Over 19dB F/B ratio • 400W maximum power, SSB • Boom length, 10.5 ft. • 7.3 ft. turning radius • SO-239 connector • 1.0 to 2.5 in. mast diameter • 4 lbs, 14 oz **$119.99**

GH-50 6M Vertical Antenna Omnidirectional • 50MHz band frequency • One-piece white fiberglass with tuning stub on top • 7'10" long • 50Ω impedance • 1.5:1 or less VSWR • 1MHz, tunable • 2.15dBi gain over 1/4-wave • Max. power: 120W, SSB/60W, FM • SO-239 connector • 2 lbs, 10 oz **$99.99**

Maldol NEW

Three-band Rubber Duck Antennas for the Yaesu FT-817 The first telescoping tri-band antenna designed to increase 6M/2M/70cm performance on the popular Yaesu FT-817 as well as tri-band HTs. Choose either the BNC or SMA connector depending on your radio. • Gain: 6M 0dbi, 2M 2.15dbi 1/2 wave, 70cm 5.5dbi 2-5/8 waves in phase • 3.2 oz

AH-510R 36 inches extended, 9.5 inches collapsed, BNC connector **$59.99**

AH-510R/SMA Same antenna as above with SMA connector **$59.99**

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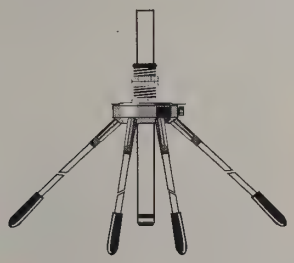
SOLARCON ANTENNAS A99

A-99 10M Base Antenna with Twin Ring Adjust-A-Match Tuning Voltage-fed, half wave variable, mutual transfer inductance tuned antenna. It's economical and easy to use! The SOLARCON sealed base unit is tuned with external inductance rings. Impedance remains constant over the tuning range. Simple Tuning! Raising the tuning rings raises the frequency and lowering the rings lowers the resonant frequency.

Rugged, three-piece, white fiberglass construction with triple-plated brass fittings. It's easy to assemble and install. The optional GPK-1 ground plane radial kit makes it perform even better!

Three sections • 10 meters • 3 dBi gain • 2000W power limit • Radiation angle of <20° • DC ground mounting • 1½" mast • 52Ω coaxial cable • SO-239 connector • 17 ft. 8 in. length **$64.99**



GPK-1 Groundplane Kit • 30% more power gain and lower angle of radiation for greater range • Kit includes 1 collar and 4 fiberglass radials **$39.99**

Lakeview Co., Inc.

WD4BUM HAMSTICKS® Two-Piece Monoband Mobile Antennas Hamstick 75 thru 10 meter models consist of a 47 inch long x 1/2 inch diameter fiberglass base section with the loading coil wound over its length and covered with black PVC shrink tubing. It's fitted on one end with a 3/8" X 24 brass base fitting that fits most amateur mobile mounts. A black 48 inch tempered stainless steel whip telescopes into the top of the base section and provides for frequency adjustment. The 6 meter model has a 34 inch base section and whip. Convenient frequency vs length graphs are included with the instructions.

If the antenna shows a SWR of 1.5 to 1 or better, no matching should be necessary. However, if it is, which may be especially true on 40 and 75m, you can capacitively match the base using values recommended in the instructions. If you frequently change bands you can use the **WD4BUM INDUCTI-MATCH (IM-1)** which consists of an impedance matching coil that simply installs at the base of the antenna. Using the supplied clip lead, you just tap up the coil for the best match.

Models

9106 (6M)	**9110** (10M)	**9112** (12M)
9115 (15M)	**9117** (17M)	**9120** (20M)
9130 (30 M)	**9140** (40M)	**9175** (75M)

All Hamsticks ..... each **$24.99**

901 Dipole Mount for 2 Hamsticks **$13.99**
IM-1 Inducti-Match **$17.99**
TM-1 License Plate Mount 3/8" x 24 ... **$44.99**
TM-1 PLUS License Plate Mt SO-239 . **$44.99**

PREMIER communications

RD-78 RD-8 RD-98 RD-9 AL-800

HANDHELD ANTENNAS

RD-2 Short Duck Antenna *(not pictured)* Perfect fit for the new micro-sized handhelds such as the VX-1R, VX-5R, IC-Q7A, etc. Only 2" tall, but gives big performance. Operates on both 2M and 440MHz and also works great for out of band scanning. Choice of BNC connector **$14.99**
RD-2SMA Or SMA connector.... ..... **$15.99**

RD-78 Extended Duck Antenna 15" tall, provides an improvement over stock, steel, spring-type antennas. Hit local repeaters solidly, access distant machines, talk extended simplex. Has 2.5dBi gain on VHF, 3.2dBi on UHF. Also includes 800/900MHz receive capability. Flexible, but doesn't droop. Gold-plated BNC connector **$19.99**

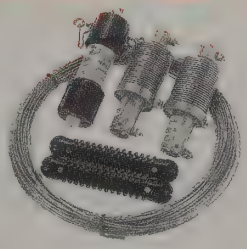
RD-8 Duck Antenna 6.5" tall and very flexible. Improves your signal over any manufacturer's stock duck. The perfect companion to any 2M/440MHz handheld, including those with 800/900MHz receive. Gold-plated BNC connector **$14.99**

RD-98 Thin Whip Antenna A 2M/440MHz HT antenna that is 17" long with a diameter of only 1/16th of an inch. Made of extremely strong and very flexible material – ties in a knot without damage! Available with a BNC connector **$24.99**
RD-98SMA Or SMA connector **$27.99**

RD-9 Flexible Duck Antenna An extremely flexible 7" tall rubber duck that will improve handheld performance on both 2M and 440MHz. while providing 800/900MHz receive capability. Connector is protected by a moisture shield and is molded to sit firmly on the connector, preventing excessive wear and tear. Choice of BNC connector **$18.99**
RD-9SMA Or SMA connector..... **$20.99**

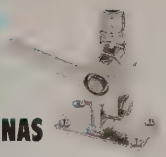
AL-800 Telescoping Antenna Useful whenever you need extra performance for satellite work, or when on the fringes of a repeater. Telescopes to 34" or collapses to 10". Has 3.2dBi gain on VHF, 5.5dBi on VHF. For convenience and/or shorter range operation, the telescoping section unscrews and may be replaced with the included 9" rat tail. Gold-plated BNC connector **$29.99**

UNADILLA



W2AU/W2VS 5-Band Antenna Kit A 110 ft. long, trapped dipole that provides low SWR on 80 and 40 meters and resonant performance on 10, 15 and 20 meters. Includes two traps, W2AU 1:1 balun, end insulators, 120 ft. of #14 stranded copper wire and instructions. Rated for 2KW PEP . **$85.99**

Shakespeare®



VHF MARINE ANTENNAS

4187 Ratchet Mount *(above)* Stainless steel. 4-way ratchet design with handle for deck or bulkhead mounting. Standard 1"–14 male threads **$36.99**

396-1 Center-fed 1/2 Wave Coaxial Sleeve Antenna Basic 3dB antenna designed to reduce signal fading when working in rough seas. Widely used by the Coast Guard. 5MHz bandwidth, 3dB gain, 50W • White Shakespeare fiberglass • Brass and copper elements • Deluxe chrome-plated brass ferrule • One section • 5 ft. length, 15' RG-58 cable with PL-259. Use 4187 ratchet mount **$59.99**

420 Skipper™ Center-fed 1/2 Wave Coaxial Sleeve Antenna Economical, and a good basic 3dB antenna for steady, day-to-day cruising in calm to moderate seas. Includes a polycarbonate lift/lay deck mount, leveling plate and hardware. 5MHz bandwidth, 3dB gain, 50W • White Shakespeare fiberglass • Brass and copper elements • Polycarbonate ferrule • One section • 5 ft. length, 15' RG-58 cable with PL-259 ..... **$59.99**

5101 Centennial™ End-fed Antenna with Matching Stub High-end features in an 8' antenna with a brass element and a smooth, high gloss, polyurethane finish that won't turn yellow in the sun. 5MHz bandwidth, 6dB gain, 50W • One section • Brass and copper elements • Chrome-plated brass ferrule with standard 1" x 14 thread • 8 ft. length • Includes 15 ft. RG-58 cable and a PL-259 coaxial connector. Use with 4187 ratchet mount..... **$49.99**

5206-C End-fed Antenna with Matching Stub Economical, lightweight and self-supporting antenna for good communications where range is not the predominant factor. 3MHz bandwidth, 6dB gain, 50W • White Shakespeare fiberglass • Chrome-plated brass ferrule • One section • DC grounded • 8' length, 15' RG-58 cable with PL-259. Use with 4187 ratchet mount **$39.99**

5202 Collinear-phased 5/8 Wave Elements A rugged, professional quality antenna featuring a heavier duty radome and tough brass and copper construction for maximum efficiency and extra range. 3MHz bandwidth, 6dB gain, 50W • White Shakespeare fiberglass • Chrome-plated brass ferrule • One section • DC grounded • 8' length, 20' RG-58 cable with PL-259. Use with 4187 ratchet mount..... **$69.99**

Look For This NEW & Check Out AES' Latest Additions.

Go Mobile, get there with → COMET!

Build your own antenna mounting system with the lip mounts and cable assemblies below.

Choose a Lip Mount

RS-730
Multi-adjustable heavy duty lip mount, up to 70" antenna

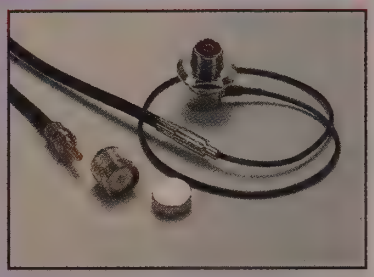
RS-720 • RS-720 NMO
Multi-adjustable lip mount, up to 60" antenna RS-720 NMO accepts an NMO mount

RS-520
Multi-adjustable lip mount, up to 45" antenna

Choose a Cable Assembly

3D5M Standard low loss cable assembly. Gold plated SO-239/ PL-259 connectors. 17' length

3D4M Same as 3D5M, but 13.5' length



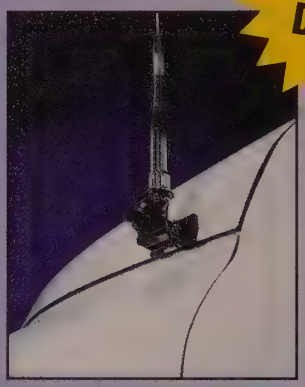
CK-3M5 Deluxe cable assembly 17' length including 17" of RG-188A/U for easy entry from a lip mount without causing water leak, wind noise or coax damage

CK-3M Deluxe cable assembly same as CK-3M5, but 9'9" total length

Create an antenna mounting system just for your vehicle!

Attach the chosen mount to the trunk, door, hood, hatch or rear door of your car, van or SUV. Any lip 1/4" or less in thickness will do. Tighten the setscrews and adjust the mount to vertical. **Installation takes only a few minutes.**

NO HOLES TO DRILL!

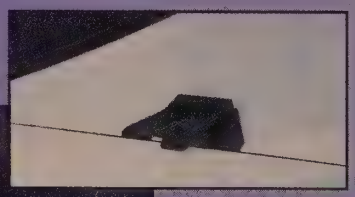


Additional available mounting assemblies with cable included!

CQ-5M
Deluxe "Quick-Disconnect" trunk lip mount with CK-3M5 cable included. With a flip of a lever, the antenna and coax are easily removed and stored in the trunk for car washes, theft prevention or any reason.

GR-5M
Deluxe stainless steel trunk lip mount with CK-3M5 deluxe cable included. Fully adjustable.

A



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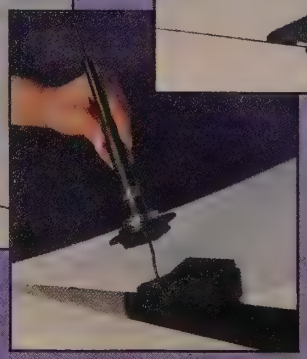

B

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Mobile, get there with COMET!

W MH-209SMA • Dual-band 146/446MHz HT Antenna w/SMA Conn
& Wave: 0 1/4 wave • Length: 3" Flexible rubber • Conn: Male SMA • Max Pwr: 5W

W SMA-503 • Dual-band 146/446MHz HT Antenna w/SMA Conn
gth: 8.75" • Conn: Male SMA • Max Pwr: 10W

W MH-510 • Tri-band 52/146/446MHz HT Antenna w/SMA Conn
: 0/0/ 3.2dBi • Length: 20.75" • Conn: Male SMA • Max Pwr: 10W

SB-15 • Tri-band 52/146/446MHz w/fold-over
Gain & Wave: 52MHz 0dBi 1/4 wave • 146MHz 4.5 dBi 6/8 wave • 446MHz 7.2dBi 5/8 wave x 3 • Length: 58" • Conn: PL-259 • Max Pwr: 120W

NEW BLACK COLOR

SBB-7 SBB-7NMO • Dual-band 146/446MHz w/fold-over
Gain & Wave: 146MHz 4.5dBi 6/8 wave • 446MHz 7.2dBi 5/8 wave x 3 • Length: 58" • Conn: SBB-7 PL-259/SBB-7NMO NMO • Max Pwr: 70W

NEW BLACK COLOR

SBB-5 SBB-5NMO • Dual-band 146/446MHz w/fold-over
Gain & Wave: 146MHz 2.5dBi1/2 wave • 446MHz 5.5dBi 5/8 wave x 2 • Length: 39" • Conn: SBB-5 PL-259/SBB-5NMO NMO • Max Pwr: 120W

THEFT **Z750** • Dual-band 146/446MHz w/fold-over • Includes COMET exclusive theft-resistant lock!
Gain & Wave: 146MHz 2.15dBi 1/2 wave • 446MHz 5.5dBi 5/8 wave x 2 • Length: 39" • Conn: Gold-plated PL-259 • Max Pwr: 200W

THEFT **Z780** • Dual-band 146/446MHz w/fold-over • Includes COMET exclusive theft-resistant lock!
146MHz 6/8 wave 4.5dBi • 446MHz 5/8 wave x 3 7.2dBi • Length: 62" • Conn: Gold-plated PL-259 • Max Pwr: 150W

B-20 B-20NMO • Dual-band 146/446MHz w/fold-over
Gain & Wave: 146MHz 2.15dBi 1/2 wave • 446MHz 5.0dBi 5/8 wave x 2 • Length: 30" •
Conn: B-20 PL-259/B-20NMO NMO • Max Pwr: 50W

B-10 B-10NMO • Dual-band 146/446MHz cellular look-a-like •
Gain & Wave: 146MHz 0dBi 1/4 wave • 446MHz 2.15dBi 1/2 wave • Length: 12" •
Conn: B-10 PL-259/B-10NMO NMO • Max Pwr: 50W

NEW **UHV-6**
• 6M/2M/70cm operation is constant. You CHOOSE the HF coils you want to add, up to four of the stock or optional coils. One vertically, the rest horizontally.
• Easily mounts to standard trunk/door mount in minutes
• Gain on 2M and 70cm
• Economical
• Fold-over hinge built in
• Select the correct duplexer or triplexer for your specific radio(s). CF-706A, CF-530, CFX-514N. (Ask your dealer)

NEW **UHV-6** • HF/6M/2M/70cm Mobile Antenna40/*20/*17/15/10/6/2M/70cm **40M Thru 70cm!**
Gain & Wave: 2M 2.15dBi 1/2 wave • 70cm 5.5dBi 5/8 wave X 2 • VSWR: HF 1.6:1 or less • 6M-70cm 1.5:1 or less • Length: 44" (min), 78" (max)
• Max Pwr: HF 120W SSB • 6M 200W SSB/100W FM • 2M/70cm 100W FM • *L-14 Optional 20M coil • *L-18 Optional 17M coil

NEW **UHV-6**
Fold-Over Position

NEW **MSG-1000C** • Dual-band 146/446MHz w/spring whip
Gain & Wave: 146MHz 2.15dBi1/2 wave • 446MHz 5.5dBi 5/8 wave x 2 • Length: 39" • Conn: PL-259 • Max Pwr: 120W

NEW **MSG-1500C** • Dual-band 146/446MHz w/spring whip
Gain & Wave: 146MHz 3.5dBi1/2 wave • 446MHz 6.0dBi 5/8 wave x 2 • Length: 43" • Conn: PL-259 • Max Pwr: 150W

NEW MSG SERIES*

Performance and Durability! Designed with a spring in the whip to absorb impacts.

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Use NCG/COMET products, and enjoy amateur radio to it's fullest!

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R6000 MULTIBAND VERTICAL

6 - 20 Meters

The Shape of Things to Come

The R6000 is a 6 through 20 meter, no ground radial antenna. It includes many of the features of the R8, R7 and R5 antennas. R6000 means excellent performance, easy installation and use, slim silhouette and high reliability. There are no traps used on 6, 10 and 15 meters for maximum efficiency and power handling.

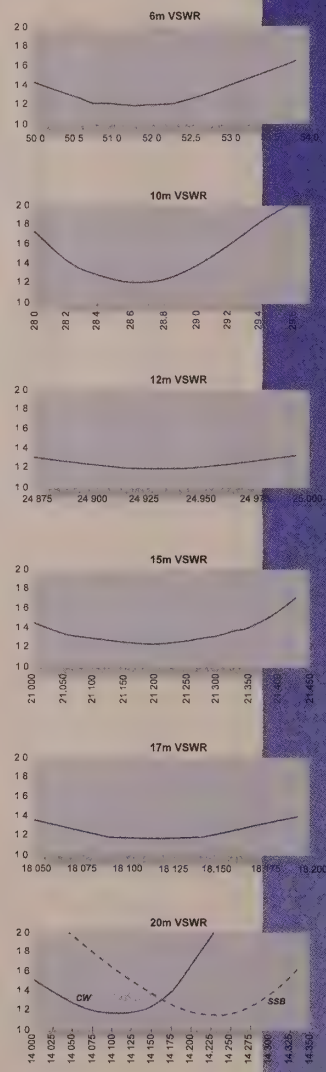
EASY INSTALLATION
For typical use, tuning is not required

AUTOMATIC BAND CHANGING
To any band 6 through 20 meters

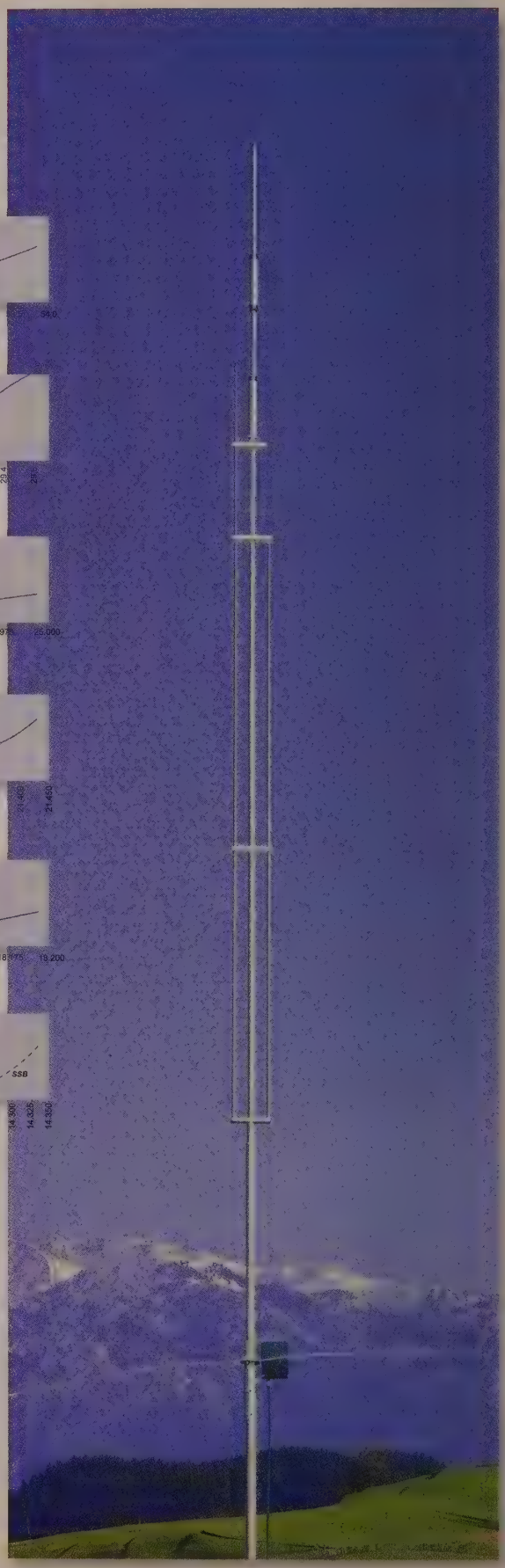
SLIM SILHOUETTE
Gain favor of family and neighbors with the slim, low profile of the R6000

6 METER OPERATION
Join the fun of the "Magic Band" and take advantage of the new HF/50MHz tranceivers

AFFORDABLE PRICE
Cushcraft delivers the best quality and performance at a price no one else can match.



SPECIFICATIONS	R6000
Frequency, meters	6, 10, 12, 15, 17, 20
Gain, dBi	3
VSWR minimum	1.2:1 typical
2:1 bandwidth, KHz	6m >1300
	10m >1700
	12m >100
	15m >450
	17m >100
	20m 300
Power ,Watts output	1500
Radiation angle, deg.	16
Horizontal rad, deg	360
Height, ft (m)	19 (5.8)
Mast size range, in	1.5 -1.75
(cm)	(3.8-4.4)
Wind load, ft^2 (m^2)	1.5 (.14)
Weight, lb (kg)	12.5 (5.6)



The R6000 employs quarter wavelength stubs on 10 and 15 meters to replace standard trap coils. The result is lower loss and wider bandwidth. The R6000 covers all bands 6 through 15 meters at a VSWR under 2:1. On 20 meters you can select the top 300 KHz or bottom 300 KHz of the band.

The R6000 weighs only 12-1/2 pounds (5.6 kg). It is lightweight and easy to mount for portable or permanent installations. Machined aluminum clamps and UV stable insulators guarantee years of reliable service. The R6000 comes with the standard Cushcraft warranty of one year from purchase - plus the industry's leading technical support team stands behind each Cushcraft antenna.

The R6000 makes an excellent diversity antenna to complement even the most complete stations, or pack up the R6000 for a trip to the DX location of your dreams.

CUSHCRAFT
COMMUNICATIONS ANTENNAS

6 - 40 Meters

R8 MULTIBAND VERTICAL

HF Multiband Vertical Antenna

6, 10, 12, 15, 17, 20, 30, 40 Meter

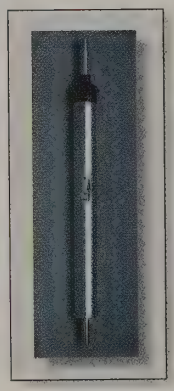
Cushcraft is pleased to announce the introduction of the R8, it's newest multiband HF vertical antenna. This most contemporary of multiband vertical designs provides 8 band coverage encompassing the 6, 10, 12, 15, 17, 20, 30 and 40 meter bands.

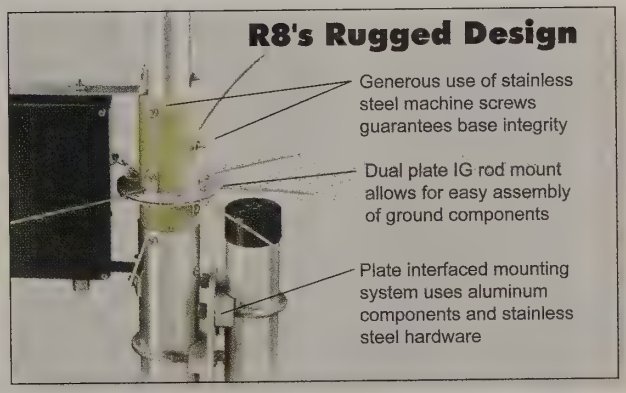
Cushcraft has achieved a major breakthrough in the development of an HF multiband vertical antenna that has been specifically designed for use with a tuner and amplifier. As a result, the antenna more accurately addresses the needs of the contemporary ham shack.

Multiband vertical antennas have always been complicated designs with components as likely to be damaged by high levels of mismatched transmit power as the rigs they are attached to. Before the use of tuners became widespread, the antenna was protected by the same safety mechanisms that protected the rig. Now, the automatic power reduction circuits of of the past have actually become a second layer of protective circuitry. Although the auto-tuner provides the ham with a more versatile device as well as protecting the rig's components, the antenna is more vulnerable than ever. With the press of a button, unmanageably high loads can be transmitted up to the antenna. The result to the antenna can be catastrophic failure in some instances.

The R8 is the first multiband vertical designed for the rigors of contemporary operating conditions. Although the antenna is best operated within it's 2.0:1 VSWR bandwidth, it can sustain a 3.0:1 VSWR mismatch at full power for typical operating intervals. Now the ham can take full advantage of the versatility that a tuner used in conjunction with a multiband HF vertical antenna can give him.

- RUGGED CONSTRUCTION
- AUTOMATIC BAND CHANGING
- SLIM, LOW PROFILE SILHOUETTE

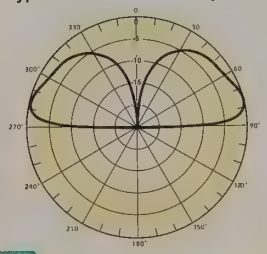


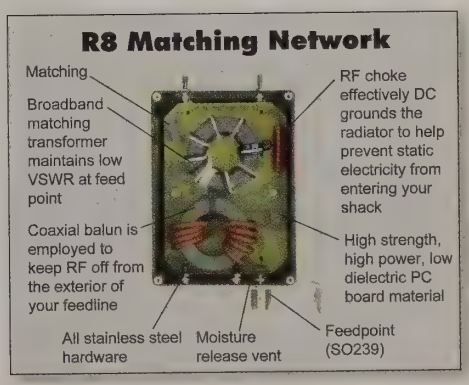


SPECIFICATIONS	R8
Frequency, meters	6,10,12,15,17,20,30,40
Gain, dBi	3
VSWR 2:1 bandwidth, KHz	40m (150)
	30m (>50)
	20m (>350)
	17m (>100)
	15m (>450)
	12m (>100)
	10m (>1500)
	6m (>1500)
VSWR at resonance (typical)	1.3:1
Power Rating, Watts CW	1500
Vertical Radiation angle, deg.	16
Horizontal rad, deg.	360
Height, ft(m)	28.5 max. (8.7)
Wind survival	80 mph
Weight, lb. (kg)	23 (10.5)

Even if you aren't using a tuner and amplifier, you will appreciate this antenna's rugged, heavy duty components. The R8 is easy to assemble and is built to provide years of trouble free service and satisfaction.

Typical elevation radiation pattern





CUSHCRAFT
COMMUNICATIONS ANTENNAS

INTRODUCING, MA5V VERTICAL

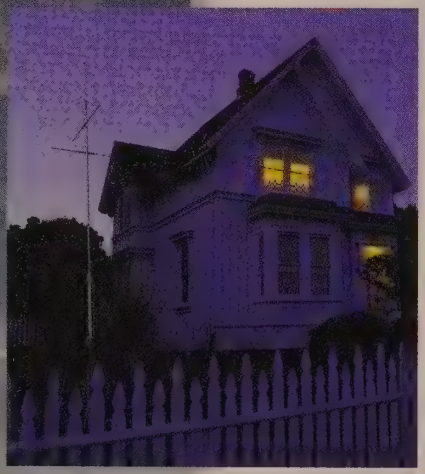
10 - 20 Meters

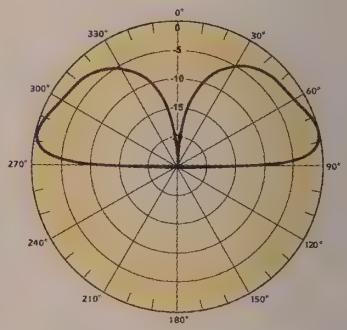
MA5V, High Performance Multiband Vertical Antenna

The latest addition to Cushcraft's line of high performance, HF multiband verticals allows the occasional user to become the neighborhood BIG GUN. Cushcraft's MA5V is ideal for temporary or portable 5 band operation. The antenna offers 5 band coverage from 10 through 20 meters and is ruggedly constructed, easy to install and just about disappears against the horizon.The antenna does not require radials and can be dismantled in a flash, making it the perfect choice for patios, small backyards, condominium and townhouse balconies or any other environments where permanent antenna use is restricted by covenant or rule. The MA5V will handle all the power you will ever need to work the world from the comfort of your own communications center. And when you're done, just store it way for next time or keep it installed if you wish.

The MA5V from Cushcraft...
Ham radio, "just for the fun of it".

- **5 band coverage**
- **Lightweight**
- **Perfect for temporary or permanent mounting**
- **Work from condos', apartments, motor homes**





Typical elevation radiation pattern

SPECIFICATIONS	MA5V
Frequency, meters:	20, 17, 15, 12, 10
Gain, dBi:	1-2
VSWR minimum:	1.2:1 All bands
Maximum Wind Surface:	.82 ft^2 (.076 m^2)
Wind Survival, mph:	>80
Maximum Power Handling:	250 SSB
Height, ft (m):	14.7 (4.48)
Mast size, in (cm):	1.25 -2.0" (3.18-5.1)
Weight, lb (kg):	6.5 (2.95)

CUSHCRAFT CORPORATION

HF MULTIBAND BEAM

10 - 20 Meters

High Front To Back Ratio
On 10/15/20m

The Director, Small Footprint–Big Signal

MA5B. Cushcraft's newest multiband HF antenna provides 5 band directivity in a package small enough to mount to a tripod. The MA5B is a design that does not sacrifice ruggedness, performance and power handling for size and ease of installation.

- *I am delighted with the performance compared with other HF antennas I have been using!*
  Bob Swannell, MOBYA

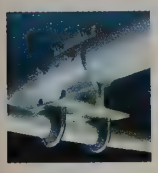
- *Thank you for making a fine quality, powerful mini beam that can fit anyones budget.*
  Phil West, KF2WL

SPECIFICATIONS	MA5B					
Frequency, MHz	10	12	15	17	20	Meters
Elements	2	1	2	1	2	per band
Gain	5.3	1.0	4.8	1.0	3.6	dBi
Front to Back Ratio	10	0	12	0	22	dB
Sidelobe Attenuation	25	25	25	25	25	dB
VSWR 2:1 Bandwidth	665	>110	255	>100	90	kHz
Longest Element	17.1ft (5.2m)					
Turning Radius	8.8ft (2.7m)					
Boom Length	7.3ft (2.2m)					
Boom Diameter	1.5in (3.8cm)					
Max. Wind Surface Area	3.22 ft^2 (.3m^2)					
Max. Power Handling	1.2 kw					
Weight	26.5 lbs. (12kg)					

- **Easy To Tune**
  No complicated gamma matches to adjust.
- **Low VSWR**
  Flat response across all 5 bands. VSWR minimum 1.2:1.
- **Single Feed Point**
  Only one coaxial feed line is necessary for all 5 bands.
- **Rugged Construction**
  Cushcraft's tried and true stainless steel mounting hardware and heavy wall aluminum tubing make for a rugged, long lasting antenna.
- **Easy To Turn**
  With a boom length of 7 feet and a longest element length of 17 feet, a lightweight TV rotor will do the trick.

BIG THUNDER TRIBANDER

- **New High Efficiency Computer Optimized Design for Maximum Gain and Ultra Clean Radiating Pattern**
- **100+ MPH Construction for Best Reliability and Long Life**
- **NEW 4L Log Cell Driven Elements for better VSWR Bandwidth**
- **Trapless Driven Elements and Reflectors for Reliable Power Handling**
- **Interleaved Element Design for Mono-Band Performance**
- **Add-on kits available for 40 Meters**



Element Hardware

Boom-to-Mast

40 Meter Add On Kits

MODEL	X7/40
Band	7 MHz
Element Length ft. (m)	41 (12.5)
Power (W)	2KW
Weight	20lbs. (9.1 kg)

X7

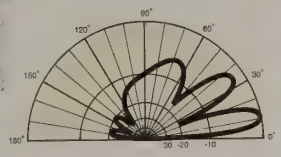
The X7 Triband Yagi is geared to set new standards in both radiating performance and mechanical reliability. Cushcraft's product development team has employed the latest computer modeling technology to achieve a superior electrical design as well as elegant new mechanical hardware and assembly techniques.

Each mechanical component was designed to 100+ MPH wind survival with a 1.25 safety factor. Traps were eliminated from the high current driven elements and reflectors using the new 4L Log Cell design, which yields virtual monoband performance and maximum power handling capability. Traps are employed only in the lower current directors for increased gain and sharper pattern. The result is a truly high performance antenna which will easily handle the legal limit.

X7

Azimuth

Typical radiation patterns.
Height: One wavelength.
Frequency: 20 M



Elevation

SPECIFICATIONS		X7
Frequency Coverage (Meters)		10, 15, 20
Total number of Elements		7
Maximum Gain (dBi)	20M	12.5 @ 14 deg
@ One Wavelength	15M	13.0 @ 12 deg
	10M	12.9 @ 14 deg
Maximum Front to Back Ratio (dB)		30
Number of Elements per Band		3
VSWR Minimum		1.1:1
VSWR 1.5:1 Bandwidth (KHz)	20M	600
	15M	750
	10M	1700
Longest Element, ft (m)		37.2 (11.33)
Turning Radius, ft (m)		20.0 (6.09)
Boom Length, ft (m)		18 (5.49)
Boom Diameter, in (cm)		2-1/2 (6.35)
Maximum Mast Diameter OD, in (cm)		2-1/2 (6.35)
Maximum Wind Survival, mph (kph)		>100 (>161)
Maximum Wind Surface Area, ft^2 (m^2)		7.9 (.73)
Windload @ 80 mph, lb (kg)		202 (92)
Maximum Power Handling (KW)		2
Weight, lb. (kg)		60 (27.2)

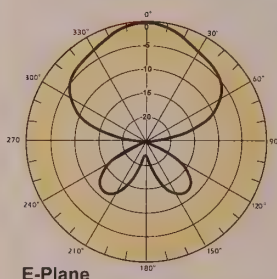
CUSHCRAFT
COMMUNICATIONS ANTENNAS

ASL670 LOG PERIODIC ANTENNA

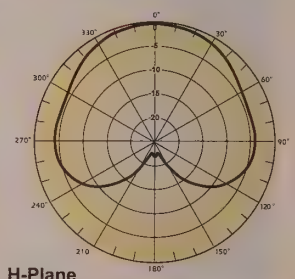
6 Meter - 70 CM

The antenna exhibits excellent gain and f/b with good VSWR bandwidth to boot. Get one today and enjoy the fun of high performance operation and multi-frequency listening all in one compact antenna.

- Rugged construction
- Wide band Log Periodic
- Easy to install
- Easy to turn



E-Plane

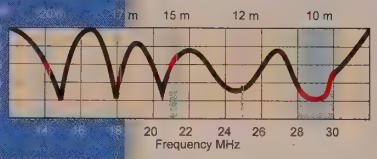


H-Plane

ASL670 Log Periodic

Cushcraft's new ASL670 is the ultimate multi-use antenna. Since the antenna is a log periodic, it offers continuous coverage through the 2 and 6 meter bands as well as 220 and 440 MHz. So, while being a terrific antenna for operating on those bands, it is also a great aviation and public safety band monitoring antenna. Use the antenna for contesting and mountain topping if you like. The antenna is compact and easy to assemble and disassemble with no tuning required. Yet it is rugged enough for permanent installation. The ASL670 really shines in its performance specs.

MODEL	ASL670
Frequency, MHz:	50 - 450, Continuous
No. Elements:	14
Forward Gain, dBi, dBd:	6.5, 4.5
Front to Back Ratio, dB:	20
SWR:	1.5:1 Average
Power Rating, Watts PEP:	300
3dB Beamwidth, Degrees, H-Plane:	110
E Plane:	80
Boom Length, ft (m):	6'-8" (1.9)
Boom Size, in (cm):	1.0 x 2.75 (2.54 x7)
Longest Element, ft (m):	126.6" (3.22)
Turning Radius, Horizontal Mtg. ft (m):	6'-3" (1.9)
Turning Radius, Vertical Mtg. ft (m):	3'-9" (1.15)
Mast Size Range, in (cm):	1.5"-2.5" (3.8-6.4)
Wind Load, ft^2 (m^2):	3.0 (.28)
Weight, lb (kg):	11-1/4 (5.15)



- Continuous five band coverage from 13.5 to 32 MHz
- Constant over entire frequency range
- 6.4 dBi gain, 65 degree beamwidth
- High efficiency design, antenna stays cool and VSWR steady
- 18 foot boom and 19.5 foot turning radius

Skylog

The ASL2010 log periodic antenna is the most cost effective, high gain, five band antenna solution on the market today. Skylog offers continuous operation from 13.5 to 32 MHz. Antenna gain and beamwidth are constant for uniform coverage from 10 through 20 meters. The ASL2010 is rated for continuous duty at full legal power. Skylog is designed for maximum gain on a manageable 18 foot boom with only 10.1 square feet of wind surface area. All stainless steel hardware and rugged element design are only some of the many features that provide years of superior antenna performance. Skylog ASL2010 is the smart choice for multiband HF operation.

MODEL	ASL2010
Frequency, MHz	13.5-32
No. Elements	8
Forward Gain, dBi	6.4
Front to Back Ratio, dB	15-20
SWR 1.2:1 Typical	
2:1 Bandwidth	18.5 MHz
Power Rating, Watts PEP	2000
3dB Beamwidth, Degrees	
E Plane	65
Boom Length, ft (m)	18 (5.48)
Boom Diameter, in (cm)	2.0 (5.08)
Longest Element, ft (m)	38 (11.58)
Element Ctr Dia., in (cm)	1.25 (3.18)
Turning Radius, ft (m)	19.25 (5.86)
Mast Size Range, in (cm)	1.5-2 (3.8-5.1)
Wind Load, ft^2 (m^2)	10.1 (.93)
Weight, lb (kg)	55 (25.5)

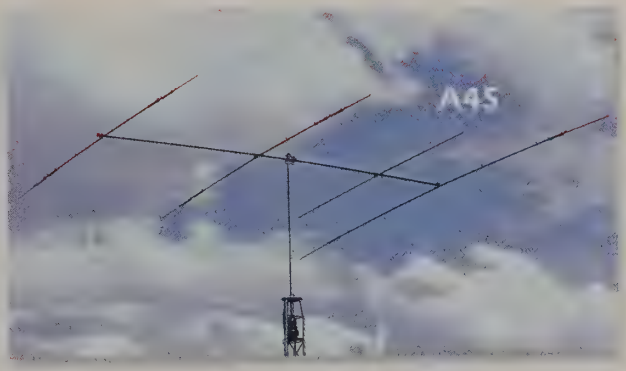
CUSHCRAFT
COMMUNICATIONS ANTENNAS

10 - 40 M WORLD RANGER MULTIBAND HF YAGIS

A4S Four Element Beam - 10, 15 & 20 Meters

With stainless steel hardware.

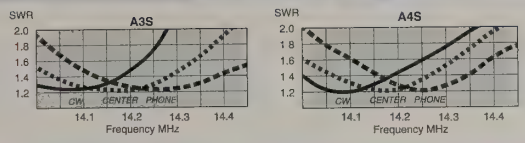
The A4S is the true, high performance tribander. Precisely tuned high-power traps, carefully selected element lengths, and proper spacing combine to make the A4S the preferred antenna for your HF work! This is the premium antenna with all the features that you want. High gain, low SWR, and wide bandwidth keep the contacts coming in. All U-bolts, clamps and hardware are stainless steel. The A4S has pinned boom sections and formed aluminum brackets to keep elements straight under all conditions. Our solid construction keeps the A4S on the tower! Add 40 meters with A744 kit.

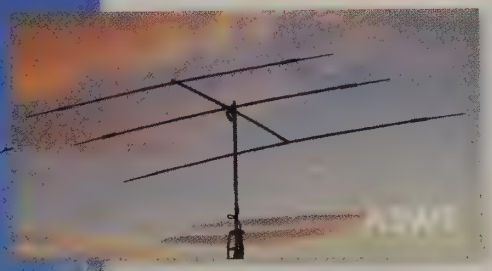


A3S Three Element Beam - 10, 15 & 20 Meters

With stainless steel hardware.

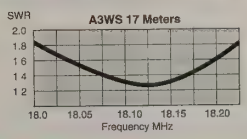
The A3 World Ranger, our top selling tribander, has become the A3S with all stainless steel hardware. It's a real power-house in a small space and lets you work the pile-ups with confidence. All you need is a lightweight tower and rotator to enjoy the benefits of the A3S. It's a proven performer in DX-peditions and contests and handles full power from your linear. Construction features include pinned boom sections, heavy duty element clamps with backing plates plus all stainless steel hardware. When space is at a premium, but you want the benefits of a full-size tribander, the A3S is right for you! Add 40 meters with A743 kit.

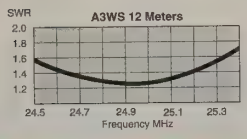




A3WS WARC Bands 3 Element - 12 & 17 Meters

Enjoy the excitement of the WARC bands with this popular beam. The A3WS gives full performance on 12 and 17 meters. With the addition of our easy-to-use A103 add on kit, it will also cover 30 meters. A3WS needs only a lightweight tower and rotator or you can mount it above an existing tribander. Construction features include pinned boom sections, heavy duty element clamps with backing plates plus all stainless steel hardware.





MODEL	A4S	A3S	A3WS
Frequency, MHz	28, 21, 14	28, 21, 14	24, 18
No. Elements	4	3	3
Forward Gain, dBi	8.9	8.0	8.0
Front to Back Ratio, dB	25	25	25
SWR 1.2:1 Typical			
2:1 Bandwidth KHz	>500	>500	300
Power Rating, Watts PEP	2000	2000	2000
3 dB Beam Width, Deg. E Plane	58	60	60
Boom Length, ft (m)	18 (5.48)	14 (4.27)	14 (4.27)
Boom Diameter, In (cm)	2 (5.10)	1.5 (3.81)	1.5 (3.81)
Longest Element, ft (m)	32 (9.75)	27.75 (8.45)	25.1 (7.66)
Element Center Dia, in (cm)	1.25 (3.18)	1.25 (3.18)	1.25 (3.18)
Turning Radius, ft (m)	18.4 (5.49)	15.5 (4.72)	14.4 (4.4)
Mast Size Range, in (cm)	1.25-2.00 (3.18-5.08)	1.25-2 (3.18-5.08)	1.25-2 (3.18-5.08)
Wind Load, ft^2 (m^2)	5.50 (0.51)	4.36 (0.47)	4.1 (0.38)
Weight, lb (kg)	37 (16.8)	27 (12.9)	22.5 (10.2)

30 & 40 Meter Add-On Kits - For A3S, A4S & A3WS

40 meters will come alive by adding one of these kits to the dipole of your A3S or A4S. The kits include high power traps with heavy wall fiberglass insulator and all hardware. A simple adjustment allows 30 meter operation. For our newest beam, the A3WS, we have a 30 meter add on kit the A103.

A743 7 MHz/10 MHz kit for A3S
A744 7 MHz/10 MHz kit for A4S
A103 10 MHz kit for A3WS

MODEL	A743/A744		A103
BAND	**7 MHz (40 m)**	**10 MHz (30m)**	**10 MHz (30m)**
Driven Element with Adapter kit, ft (m)	33.19 min. 35.33 max. (10.12-10.77)	27.12 min. 28.4 max. (8.27-8.66)	32.1 (9.8)
Windloading ft2 (m2)	.58 (.05)	.27 (.03)	.45 (.04)
Bandwidth, KHz	125	150	250
Power Rating, Watts	2000 PEP	2000 PEP	2000 PEP
Side Rejection, dB	20	20	20
Weight, lb (kg)	3.44 (1.56)	2.29 (1.04)	3.25 (1.47)

Rotatable Dipoles

Our World Ranger Dipoles give bi-directional patterns and rotatable convenience. You can mount them high and away from the trees for better performance than a wire dipole. These single and multi-band dipoles feature high-performance traps, heavy wall tubing, and rugged hardware for years of enjoyment.

MODEL	D40	D4	D3	D3W
Frequency, MHz	7	28,21,14,7	28,21,14	24,18,10
SWR 1.2:1 Typical				
2:1 Bandwidth, KHz	200	>350 40>125	>500	>200
Power Rating Watts PEP	2000	2000	2000	2000
Length ft (m)	42.25 (12.88)	35.8 (10.92)	25.8 (7.86)	34.0 (10.37)
Mast Size, in(cm)	1.5-2 (3.8-5)	1.5-2 (3.8-5)	1.5-2 (3.8-5)	1.5-2 (3.8-5)
Wind Load, ft2 (m2)	1.3 (.12)	1.3 (.12)	.9 (.08)	.9 (.08)
Weight, lb (kg)	12 (5)	13 (6)	9 (4)	11 (5)

CUSHCRAFT

MULTIBAND DIRECTIONAL YAGI

6/2 Meter,70 CM,

A627013S 6 Meter/2Meter/70 CM

Cushcraft's newest multiband directional yagi is designed to provide hobbyists who have limited tower or mast space with directional antenna performance on three of the most popular bands. The A627013S combines 6 meters, 2 meters and 70 centimeters on one boom. Since the three antennas were designed to share a common boom, the A627013S solves the often encountered problem of degraded antenna performance due to inadequate spacing when using separates.

MODEL	A627013S		
Frequency, MHz	50-54	144-148	430-450
No. Elements	3	5	5
Forward Gain, dBi	8	10	10
Front to Back Ratio, dB	20	20	18
SWR 1.2:1 Typical			
2:1 Bandwidth, MHz	>1	>4	>10
Power Rating, Watts PEP	1000	350	350
3dB Beamwidth, Degrees			
E Plane		48.5	48.5
H Plane		60	60
Boom Length, ft (m)		8.66 (2.66)	
Longest Element, in (cm)		117 (300)	
Turning Radius, ft (m)		6.16 (1.87)	
Mast Size Range, in (cm)		1.25-2 (3.2-5.1)	
Wind Load, ft^2 (m^2)		2.52 (0.23)	
Weight, lb (kg)		9.5 (4.3)	

- **Outstanding performance thanks to Cushcraft's unmatched multiband design technology and experience.**
- **Rugged stainless steel mounting hardware is easy to install and maintain.**

Boom-to-Mast

Element Hardware

Big Thunder Monobander

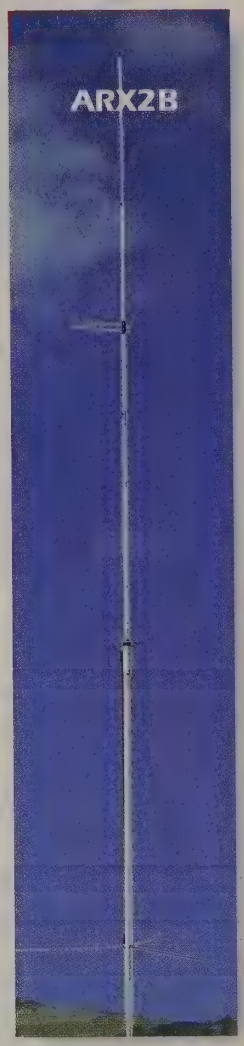
Cushcraft's XM240 monobander utilizes rugged Big Thunder hardware that combined with high strength aluminum tubing affords the antenna outstanding wind survivability. Phillystran boom trusses are used in the XM240 design for extra boom stability. The feed system is a 50 ohm direct feed with dual driven elements. VSWR is flat across the band. A high power 1:1 balun is included. The XM240 is field-proven for reliability and performance. Excellent front to back ratio and gain makes the XM240 the right choice for DX and for stacking as well.

MODEL	XM240
Frequency, MHz	7.0 - 7.3
Number Elements	2
Forward Gain Free Space, dBi	6.0
Fwd Gain @ 1 Wavelength Ht, dBi @ 14 deg	12.5
Front to Back Ratio, dB	20-25
VSWR Typical Minimum	1.1:1
VSWR 1.5:1 Bandwidth, KHz	150
Power Rating, Watts Output	1500
3dB Beamwidth, Degrees	70
Side Lobe Attenuation, dB	>35
Boom Length, feet (m)	22 (6.7)
Boom Diameter, inches (cm)	2.5 (6.3)
Longest Element, feet (m)	43 (13.1)
Turning Radius, feet (m)	24.3 (7.4)
Max Mast Size, inches (cm)	2.5 (6.35)
Wind Surface Area, sq ft (sq m)	5.5 (.51)
Wind Load @ 80 mph, lbs (kg)	142 (64.4)
Weight, lbs (kg)	55 (25)

CUSHCRAFT
COMMUNICATIONS ANTENNAS

RINGO RANGER II, RINGO RANGER, RINGO

70 CM, 1¼M, 2 M



Some hams comment on the ARX2B:

"Since I put this antenna up I have received many compliments on the improvement of my signal." (N3LHP)

"The only antenna I ever installed that worked like it should the first time." (N7PGH)

"ARX2B is a good antenna for my use on 2 meters FM...Several on the air in my area." (N9OPL)

"ARX2B...the best antenna." (XE2CLB)

Our Ringos are Number One.

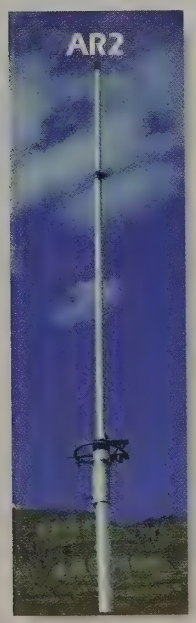
Tough performers at a good price! The Ringo family of dependable, cost-effective antennas has served more hams - from novice to veteran extra - than any other amateur antenna made. Simple, straightforward design, light weight and quick, easy installation make the durable Ringo family right for you. Ringo's top performance and low cost mean more dB per dollar - an equation anyone can appreciate.

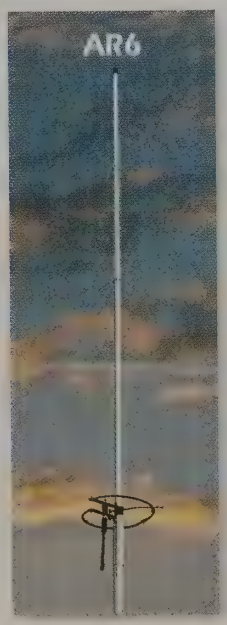
Ringo Ranger II

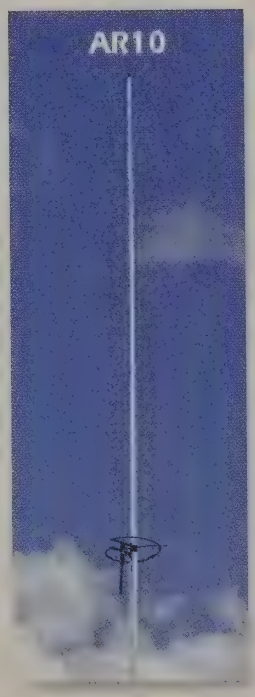
Our Ringo Ranger II has more gain, less windload, and more mechanical integrity than other two meter antennas. You'll quickly appreciate the benefits of this amazing antenna! Based on the original W1BX Ringo, the Ringo Ranger II is the latest design featuring three 5/8 wave radiating elements and an adjustable 1/8 wave phasing stub. The result is a very low angle of radiation over your coverage area.

The Ringo Ranger II has built-in lightning protection, UV-stabilized insulators, heavy wall tubing, improved decoupling radials to eliminate feedline radiation, and all-weather performance.

MODEL	ARX2B	ARX220B	ARX450B
Frequency, MHz	135-160	222-225	435-450
SWR 1.2:1 Typical			
2:1 Bandwidth, MHz	>3	>5	>10
Gain, dBi	7.0	7.0	7.0
Power Rating, Watts FM	1000	500	500
Radiation Angle, Deg.	7	7	7
Horizontal Radiation Pattern, Degrees	360	360	360
Ring Diameter, in (cm)	5 (12.7)	5 (12.7)	3.5 (8.9)
Radiator Base Dia, in (cm)	.75 (1.9)	.75 (1.9)	.50 (1.2)
Height, ft, (m)	14 (4.3)	9.3 (2.8)	4.9 (1.5)
Mast Size Range, in (cm)	1.0-1.25 (2.54-3.1)	1.0-1.25 (2.54-3.1)	.75-.88 (1.9-2.22)
Radial Length, in (cm)	20.5 (52.1)	13.75 (33.7)	6.75 (17.1)
Wind Load, ft^2 (m^2)	0.5 (0.05)	0.3 (0.03)	0.2 (0.02)
Weight, lb (kg)	6 (2.7)	5 (2.3)	1 (.45)







Ringo

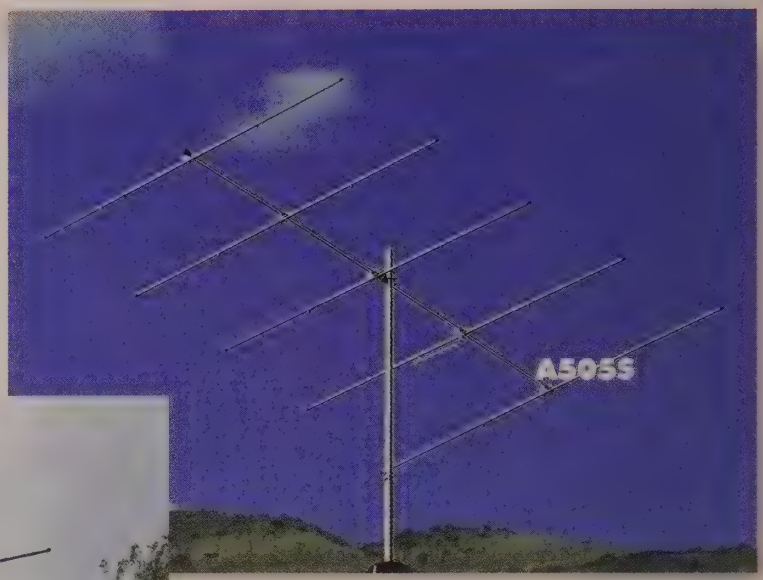
These are the original W1BX FM Ringos. If you want a combination of compact size, wide bandwidth, a low radiation angle, these economical antennas are just for you. Since radials are not needed, you can even use our Ringos indoors. Our Ringos are 1/2 wave and include built-in lightning protection. Put up one of these easily installed antennas and start enjoying FM!

MODEL	AR2	AR6	AR10	AR450
Frequency, MHz	135-160	50-54	28-29.7	440-460
SWR 1.2:1 Typical				
2:1 Bandwidth, MHz	10	2	>1.5	20
Gain, dBi	3	3	3	3
Power Rating, Watts FM	1000	1000	1000	500
Radiation Angle, Deg.	16	16	16	16
Horizontal Radiation Pattern, Degrees	360	360	360	360
Ring Diameter, in (cm)	5 (12.7)	13 (33)	13 (33)	3.5 (8.9)
Radiator Base Dia, in(cm)	.75 (1.9)	1 (2.5)	1 (2.5)	.5 (1.3)
Height, ft, (m)	3.9 (1.2)	10.1 (3.1)	17.6 (5.36)	1.4 (.43
Mast Size Range, in (cm)	1-1.25 (2.54-3.1)	1-1.25 (2.54-3.1)	1-1.25 (2.54-3.1)	.75-.88 (1.9-2.22)
Wind Load, ft^2 (m^2)	.21 (.02)	.37 (.03)	1.68 (.16)	.1 (.01)
Weight, lb (kg)	1.5 (.68)	2.5 (1.1)	4 (1.8)	1 (.45)

CUSHCRAFT

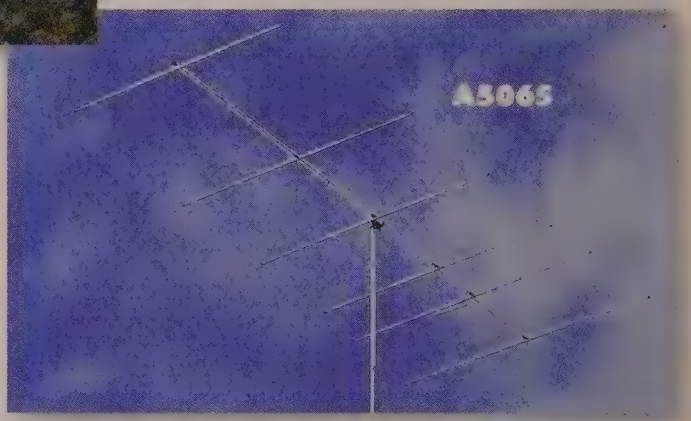
6 Meter Yagis - SSB/CW/FM

Computer-aided modeling and test range techniques were used by Cushcraft engineers to further optimize the performance of our popular 6 meter Yagis. This process means more gain and cleaner patterns with excellent front-to-back ratios. S-models have very broad bandwidth so they will not detune in bad weather. They feature stainless steel hardware for long trouble-free life. Enjoy the new popularity and exciting contacts on the 6 meter band with one of the S-series Cushcraft Yagis. The A503S, A505S and A506S may be mounted vertically for FM use.



10 Meters

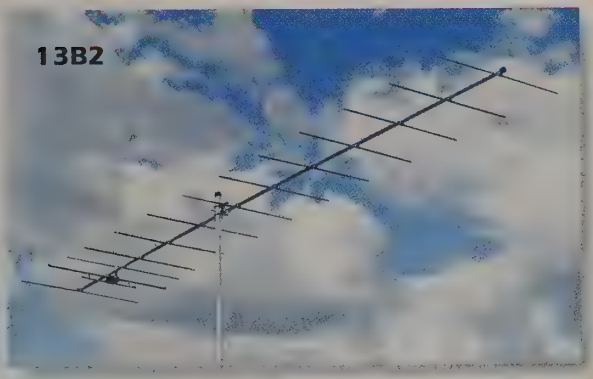
Looking for a lightweight, economical alternative to the 10 meter big boys? Choose the TEN3. Although it□s popular with novices and technicians, this antenna is for any ham who wants more gain with a good front to back ratio on 10 meters. This antenna has an 8 foot boom (2.4m) making it easy to install on a very simple mount with only a light rotator. The matching system is our proven Reddi-Match for 50 Ohm no balun feed and SO-238 connector. Make more positive contacts with the TEN3.



MODEL	A503S	A505S	A506S	TEN3
Frequency, MHZ	50-54	50-54	50-54	28-29.7
No. Elements	3	5	6	3
Forward Gain, dBi	8	10.5	11.6	8
Front to Back Ratio, dB	20	24	26	25
SWR 1.2:1 Typical				
2:1 Bandwidth, MHz	>1	>1	>1	>1.5
Power Rating, Watts PEP	1000	1000	1000	2000
3dB Beamwidth, Degrees				
E Plane	76	56	48	64
Boom Length, ft (m)	6 (1.8)	12 (3.7)	20 (6.1)	8 (2.44)
Longest Element, in (cm)	117 (300)	123 (312)	119 (302)	18 (5.49)
Turning Radius, ft (m)	6 (1.8)	7.8 (2.37)	11.5 (3.5)	9.8 (3.0)
Mast Size Range, in (cm)	1.5-2 (3.8-5.1)	1.5-2 (3.8-5.1)	1.5-2 (3.8-5.1)	1.5-2 (3.8-5.1)
Wind Load, ft2 (m2)	1.80 (0.17)	2.9 (0.273)	4.46 (.41)	2.0 (.20)
Weight, lb (kg)	7 (3.2)	11 (5.0)	18 (8.2)	9.9 (4.45)

BOOMER SIDEBAND/CW YAGIS

2 Meters



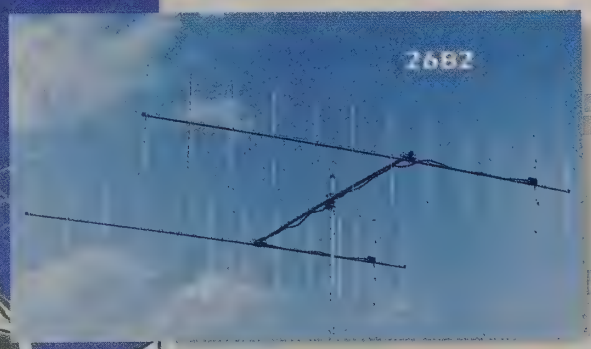
13B2 -13 Element Wideband Boomer

The 13B2 is as versatile as the 17B2 is specialized. 13B2 will be your choice for high performance across the entire 2 meter band. New and experienced hams will enjoy 15.8 dBi gain on FM, packet, CW, or sideband across the 4 MHz operating range. The 13B2 is easily mounted vertically or horizontally for maximum performance on your favorite mode. Its optimum boom length makes it a popular antenna that fits just about anywhere. The new UltraMatch balanced feed on the 13B2 provides a 50 Ohm match via a standard SO-239 UHF female connector. Model **13B2N** has N connector.

17B2 - 17 Element CW/SSB Boomer

The serious two meter operator who is interested in EME, aurora, scatter, SSB, CW, tropo etc, will choose the 17B2. It has 17 elements on a 4.5 wavelength boom. Our computer-aided design supported by precise test range data and the latest manufacturing technology gives you a cleaner pattern and 18 dBi gain in this long boom design. Significant enhancement is provided by the new UltraMatch balanced feed system with N-connector.

The new Cushcraft UltraMatch is a modified T-match system that provides a balanced current distribution on your Boomer. It uses UltraLink teflon® dielectric cable allowing for low loss high power applications. UltraMatch is completely enclosed for weather proofing. UltraMatch features an N-connector on the 17B2 and UHF SO239 on the 13B2. When all weather performance is important, you will choose the new UltraMatched Boomers everytime.



26B2 - 26 Element Wideband Boomer

This antenna offers the highest gain of any 2 meter FM antenna in the world. The 26B2 includes two complete 13B2 antennas, stacking boom and phasing harnesses.

124WB - 4 Element Wideband Boomer

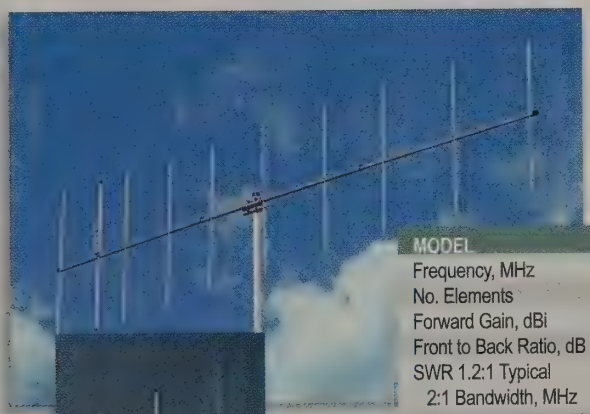
This is the right choice for packet systems and other applications requiring a dedicated directional antenna.

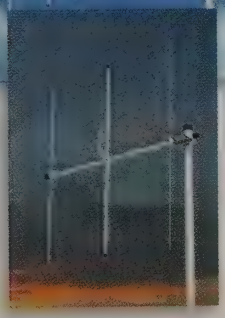
A14810S & A1483S 2M Yagis

These antennas are the newest computer optimized models of our 2 meter Yagis. We have improved both the pattern and gain to give you better FM coverage.

The A1483S is the low priced quality leader for Packet, FM or even portable use. It is easily rear mounted.

A14810S is one of our best value designs with excellent gain and front-to-back ratio. Use it for long range FM or full band 2 meter operation.





MODEL	13B2	17B2	124WB	26B2	A1483S	A14810S
Frequency, MHz	144-148	144-145	144-148	144-148	144-148	144-148
No. Elements	13	17	4	26	3	10
Forward Gain, dBi	15.8	18.0	10.2	18.8	7.8	13.2
Front to Back Ratio, dB	26	26	19	26		
SWR 1.2:1 Typical						
2:1 Bandwidth, MHz	>4	>2	4	>4	>5	≥4
Power Rating, Watts PEP	2000	2000	2000	2000	1000	1000
3 dB Beamwidth, Degrees						
E Plane	2 x 18	2 x 14.5	60	2x18	66	40
H Plane	2 x 19	2 x 15	88	2x9.5	108	46
Side Lobe Atten., dB, E Plane	>60	>60	40	>60		
Boom Length, ft (m)	15 (4.57)	31 (9.45)	4 (1.22)	15 (4.57)	2.8 (.85)	12 (3.6)
Electrical Wavelength	2.2	4.5	.5	2.2		
Longest Element, in (cm)	39.75 (101)	40.75 (103.5)	40.75 (104)	39.75 (101)	41 (104.1)	40.3 (102.4)
Turning Radius, ft (m)	8.9 (2.7)	17.25 (5.26)	4 (1.22)	10.4 (3.18)	2.8 (.8)	6 (1.8)
Mast Size Range, in (cm)	1.5-2	1.5-2	1.25-2	1.5-2	1.25-2	1.25-2
	(3.8-5.1)	(3.8-5.1)	(3.2-5.1)	(3.8-5.1)	(3.2-5.1)	(3.2-5.1)
Wind Load, ft^2 (m^2)	1.8 (.17)	3.9 (.36)	.34 (.034)	4.84 (.45)	.27 (.02)	1.21 (.11)
Weight, lb (kg)	6.7 (.31)	15.75 (7.14)	3 (1.36)	21.5 (9.75)	1.5 (.7)	6 (2.7)

CUSHCRAFT

A14820T 2 Meter Hi-Lo Cross Yagi

Here's the antenna that solves multi-mode problems! Ten vertically polarized and ten horizontally polarized elements provide 11.1 dBi gain covering 144-148 MHz. The horizontal elements handle your CW and SSB needs, while the vertical elements cover FM. Hardware is stainless steel. Separate coax feeds allow polarization changes.

A14820T has a boom length of 11 ft. (3.4m), longest element length of 40.6 in. (103cm), wind area of 1.21 ft^2 (.11m^2), and a mast size of 1.25-2 in. (3.2-5.1 cm).

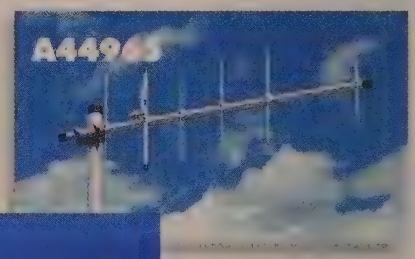
224WB
220 MHz Widebands

These 222 MHz beams are perfect for Packet, FM repeaters, or sideband/CW. Both antennas can be mounted for vertical or horizontal polarization.

MODEL	224WB	A14820T
Frequency, MHZ	222-225	144-148
No. Elements	4	10/10
Forward Gain, dBi	10.2	13
Front to Back Ratio, dB	24	24
SWR 1.2:1 Typical		
2:1 Bandwidth, MHz	>5	>4
Power Rating, Watts PEP	2000	1000
3dB Beamwidth, Degrees		
E Plane	60	45
H Plane	88	50
Side Lobe Attenuation, dB E Plane	40	40
Boom Length, ft (m)	3 (.91)	11(3.4)
Electrical Wavelength	0.5	1.6
Longest Element, in (cm)	26.7 (68)	40.6 (103)
Turning Radius, ft (m)	3 (.91)	7.5 (2.3)
Mast Size Range, in (cm)	1.25-2 (3.2-5.1)	1.25-2 (3.2-5.1)
Wind Load, ft^2 (m^2)	.23 (.021)	0.39(0.11)
Weight, lb (kg)	1.7 (.77)	7 (3.15)

A4496S/A44911S

Use one of these 440 MHz beams for your FM/Packet needs. Both work great for vertical or horizontal polarization.



MODEL	719B	A4496S	A44911S
Frequency, MHz	430-450	440-450	440-450
No. Elements	19	6	11
Forward Gain, dBi	15.5	10.5	13.2
Front to Back Ratio, dB	25	18	20
SWR 1.2:1 Typical			
2:1 Bandwidth MHz	20	>10	>10
Power Rating, Watts PEP	2000	350	350
3 dB Beamwidth, Degrees			
E Plane	24	60	48
H Plane	19		
Side Lobe Atten., dB, E Plane	60		
Boom Length, ft (m)	13.5 (4.1)	2.9 (0.89)	4.2 (1.35)
Electrical Wavelength	6		
Longest Element, in (cm)	13.75 (34.9)	13 (33)	13 (33)
Turning Radius, ft (m)	7.25 (2.2)	2.9 (.89)	2.8 (.85)
Mast Size Range, in (cm)	1.25-2 (3.2-5.1)	1.25-2.0 (3.2-5.1)	1.25-1.5 (3.2-3.8)
Wind Load, ft^2(m^2)	1.2 (.11)	0.30 (0.03)	0.39 (0.04)
Weight, lb (kg)	5.6 (2.55)	3 (1.4)	4 (1.8)

719B FM, CW and SSB 15.5 dBi

Looking for an antenna to enhance performance on all modes of the 70 CM band? The 13.5 foot long 719B is the right choice. Mount it vertical for FM or horizontal for CW and Sideband. The 719B joins the 2 meter 13B2 as a classic for improved performance.

ISOTRON
BILAL COMPANY

Antennas for Very Limited Space
Simple & Effective...

2001 – Our 21st Year!

See product reviews **73 Magazine:** Oct. '84, Sept. '85, Mar. '86, Nov. '94, Apr. '96. **CQ magazine:** Dec. '88. **WR:** Mar '91.
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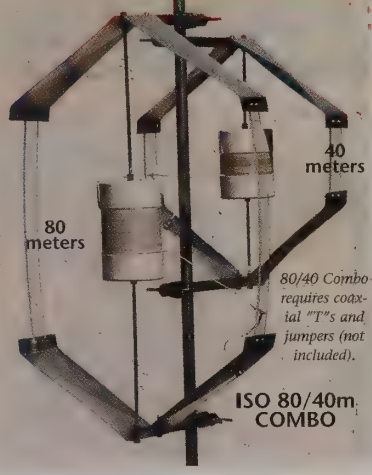
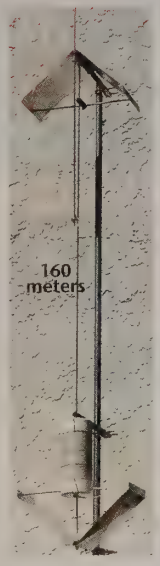


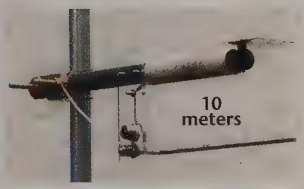
- Solve restricted space problems.
- Easy, quick, and simple installation.
- Handles up to 1,000 watts PEP.
- Excellent portable operation - emergencies, RV's, field day, motels, Maritime operation.
- Not dependent on a grounding system for performance.
- Unobtrusive appearance, making a very discreet looking installation.
- Very Stealth.
- Excellent Low Noise reception and transmitting quality performance is not compromised by its compact design.
- Tunes and performs without radials.
- Multi-band operation on one feedline with back to back mounting. Any other combination of three bands may be substituted on special order.
- Durable construction, can be used in extreme weather conditions, will not bend in high winds. No motors or mechanical tuning devices to fail.

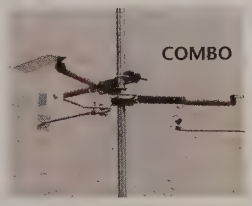


Common Specifications: 1000W PEP power rating (300W, CW, AM, FM, RTTY) • 50–75Ω coax feed • Omni-directional radiation pattern • Bandwidth shown is within 2:1 SWR but may vary with environment • Stainless steel fasteners • Zinc plated u-bolts • Tempered aluminum components • Cast acrylic and PVC insulators • THHN #14 solid copper coils • 85 mph wind rating

Individual Specifications:

Model	ISO 160C	ISO 80	ISO 40	ISO 20	ISO 15	ISO 10	ISO 6
Band	160 meters	80 meters	40 meters	20 meters	15 meters	10 meters	6 meters
Freq.	1.8-2.0MHz	3.5-4.0MHz	7.0-7.3MHz	14-14.35MHz	21-21.450MHz	28-30MHz	50-54MHz
hxwxd (in.)	114 x16x15	32x16x15	22x16x15	21x8x4	21x1½x4	16x1½x4	16½x2x4
BW	100 KHz	110KHz	250KHz	350KHz	450KHz	1MHz	1.25MHz
Windload	1.697 sq. ft	1.37 sq. ft.	1.0 sq. ft.	0.23 sq. ft.	0.23 sq. ft.	0.16 sq. ft.	0.13 sq. ft.
Weight	7 lbs.	6 lbs.	4 lbs	2 lbs	2.0 lbs	1.5 lbs	1.5 lbs.
PRICE	**$173.99**	**$98.99**	**$88.99**	**$78.99**	**$78.99**	**$78.99**	**$78.99**





Multiband Models (top & right)

ISO 80/40 COMBO Same as individual model specifications above. Operate 80/40 meters with one feed line 32"x16"x30", 2.37 sq. ft. 10 lbs..... **$169.99**

ISO 20/15/10 COMB Covers same as individual model specifications above. Operates 20/15/10 meters with just one feed line..... **$198.99**

***SPECIAL ORDER!* – You can make up your own combination. Substitute 30m for 40m in the 80/40 Combo or 17m for 12m in the 20/15/10 Combo. MARS, CAP & Commercial models available.**

PAR

OMNIANGLE ANTENNAS

For 10, 6 and 2m, 220 and 440MHz (fixed or mobile). The perfect complement to high-gain directional arrays, allowing all-direction local work and monitoring for DX. Outperforms halos, loops and turnstiles! It's considerably longer than a halfwave dipole, and coupled with the unique triangle shape, yields a horizontally polarized antenna whose pattern is within 0.8dB of being a perfect circle, and exhibiting wide bandwidth.

Rated at 150W, it's built-in matchbox and current balun allow feeding with 52Ω coax and easy tuning to desired frequency with a perfect match. The design virtually eliminates detuning due to moisture.

Stack two or four OMNIANGLES for 3 to 6dB omnidirectional gain and lower angle of radiation.

OA-28 10m, 28–30MHz..... **$74.99**
OA-50 *(bottom)* 6m, 49.5–54MHz **63.99**
OA-144 *(middle)* 2m, 138–150MHz **54.99**
OA-222 222–224MHz **54.99**
OA-432 *(top)* 420–450MHz **54.99**

Stacking Harnesses for 2 OmniAngles (3dB Gain) Made of Belden 8213 and silver/gold/teflon connectors, 70cm model uses N connectors.

SK-50 for OA-50 ..... **$36.99**
SK-144 for OA-144..... **34.99**
SK-222 for OA-222..... Closeout **29.99**
SK-432 for OA-432, type-N..... **54.99**

Van Gorden Engineering

DIPOLE ANTENNAS

Complete with Hi-Q 1:1 balun, #14 stranded copper antenna wire, plastic insulators, and 100 ft. of nylon rope. Rated for full legal power. May be used in an inverted-V configuration.

D-80 80/75m, 130' **$32.99**
D-40 40m, 66' **$29.99**
D-20 20m, 33' **$28.99**
D-15 15m, 22' **$27.99**
D-10 10m, 16' **$26.99**

Shortened Dipoles Construction is the same, and includes traps as shown above.

SD-80 75/80m, 90' **$36.99**
SD-40 40m, 45'..... **$34.99**

ALL BANDER **All Bander Dipole** Covers 160 to 10M using an antenna tuner with balanced output. Full 135 ft. long (or less, as an inverted V or sloper). Trim to fit small lots. Assembled, with #14 gauge copper wire, center and end insulators and 100 ft. of 450Ω balanced line. 2KW PEP **$29.99**

SHORTY **All Bander** As above, but with loading coils to shorten the length to 70 ft. overall **$44.99**

MULTIBAND ANTENNAS

G5RV Covers 3.5 to 30MHz, +1.8MHz as a Marconi-type antenna with a tuner. Consists of a 102 ft. flat top with a 31' long section of 300Ω (450Ω for models below) KW twinlead, a transformer/coupler and 70 ft. of RG-8X coax and connector. 2KW PEP, assembled **$50.99**

G5RV JR 7–30MHz , 52', 17' twinlead **$24.99**
G5RV-E 3.5–30MHz, 102', 31' twinlead **$28.99**
G5RV-M 1.8–30MHz, 204', 65' twinlead ... **$50.99**

Ventenna

Ventenna™ Get around those antenna restrictions and finicky neighbors. The Ventenna is virtually unnoticeable. It looks like part of a normal structure. To install, just slip over an existing 1"-2½" plumbing vent pipe, connect the coax – you're on the air. Ready to go! No tuning or measuring required. Single band models for 2m, 220MHz or 440MHz.

VT-44 440MHz, 14", 2.6dB. C/O **$39.99**
VT-15S 3' scanner, 2.6dB ... C/O **$39.99**

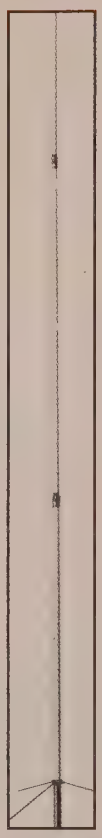
DIAMOND ANTENNAS

The Standard By Which All Others Are Judged.

Acclaimed as the technological leader in single & multiband antennas

• Wide-band Performance • Factory Adjusted–No Tuning Required • Highest Gain
• UPS Shippable • High Wind Rating • Fiberglass Radome • DC Grounded • Stainless Hardware

X50NA



X500HNA

X500HA (UHF-Conn.)
X500HNA (Type-N Conn.)
Ruggedized Base/Repeater Antenna

X50NA

The X50NA is an excellent choice where ruggedness is required in a medium–gain, dual-band, base/repeater application.

Features

- Wide frequency bandwidth
- Heavy duty fiberglass radome
- Stainless steel mounting hardware and radials
- Type–N Cable connection
- Compact size for easy mounting/installation

Specifications:

Freq.: 2m: 144–148MHz
70cm: 440-450MHz
Gain: 2m: 4.5dB; 70cm: 7.2 dB
Power: 200 watts
Wind Rating: 135 MPH (no ice)
Height: 5.6 feet

X500HNA

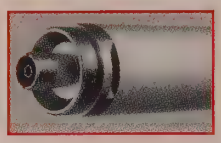
Diamond Antenna's best base station repeater antenna. Designed for strength and performance, the X500HNA is pretuned to achieve maximum gain in both the 2m and 70cm amateur bands.

Features

- Heavy duty fiberglass radome
- Overlapping outer shells for added strength
- Stainless steel mounting hardware and radials
- Strong, waterproof joint couplings
- Type–N Cable connection
- Wide band performance

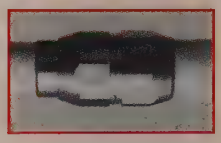
Specifications:

Freq.: 2m: 144–148MHz 70cm: 440-450MHz
Gain: 2m: 8.3dB; 70cm: 11.7 dB
Power: 200 watts
Wind Rating: 90 MPH (no ice)
Height: 17.8 feet



COAX CONNECTION AT BASE END

HEAVY DUTY BASE/ RADIAL ASSEMBLY



STRONG JOINT COUPLINGS

DIAMOND Mono-Band Base/Repeater Antennas

MODEL	BAND (MHz)	GAIN (dB)	WATTS	CONN.	HT. FT.	RATED WIND MPH (No. Ice)
CP22E [1]	144	6.5	200	UHF	9.0	90
DPGH62 [1]	50	6.0	200	UHF	21.0	78
F22A	144	6.7	200	UHF	10.5	112
F23A	144	7.8	200	UHF	15.0	90
F718A [2]	440	11.5	250	N	15.0	90
G200	2.4GHz	11 dBi	–	N	4.8	135

DIAMOND Dual-Band Base/Repeater Antennas

MODEL	BAND (MHz)	GAIN (dB)	WATTS	CONN.	HT. FT.	RATED WIND MPH (No. Ice)
X50A	144/440	4.5/7.2	200	UHF	5.6	135
X50NA	144/440	4.5/7.2	200	N	5.6	135
X200A	144/440	6.0/8.0	200	UHF	8.3	112
X510NA [3]	144/440	8.3/11.7	200	N	17.2	90
X510MA	144/440	8.3/11.7	200	UHF	17.2	90
X500HNA	144/440	8.3/11.7	200	N	17.8	90+
X700HNA	144/440	9.3/13.0	200	N	24.0	90
X2200A	144/222	6.0/7.8	150	UHF	11.5	112
U200	440/1240	8.3/11.7	100	N	5.9	135

DIAMOND Tri-Band Base/Repeater Antennas

MODEL	BAND (MHz)	GAIN (dB)	WATTS	CONN.	HT. FT.	RATED WIND MPH (No. Ice)
V2000A [4,6]	52/144/440	2.1/6.2/8.4	150	UHF	8.3	110
X3200A [5]	146/222/440	6.0/7.8/8.0	100/200	UHF	10.5	112
X6000A	144/440/1240	6.5/9.0/10.0	100/60	N	10.5	112

Most requirement: 1.4"-2.4"

DIAMOND Yagi Antennas

MODEL	BAND (MHz)	GAIN (dBi)	WATTS (PEP)	CONN.	BOOM LNTH.	ELEMENT PHASING
A502HB	50	6.3	400	UHF	2.6'	2 element
A504HB	50	10.8	400	UHF	10.7'	4 element
A144S5	144	9	100	UHF	37.5"	5 element
A430S10	432	13	100	UHF	43"	10 element

A502HB

A504HB

A144S5

NOTES:

1. Heavy duty aluminum construction.
2. F-718A: 440-450MHz., F718L: 420-430MHz.
3. X510NJ: 144-147/430-440MHz.
4. 1/4λ. rated in dBi.
5. 2m: 146-148; 100 watts
6. 52-54MHz. only

BAND: 144=144-148MHz., 222=222-225MHz., 420=420-430MHz., 430=430-440MHz., 440=440 450MHz., 1240=1240-1300MHz.

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DIAMOND'S STATE-OF-THE-ART

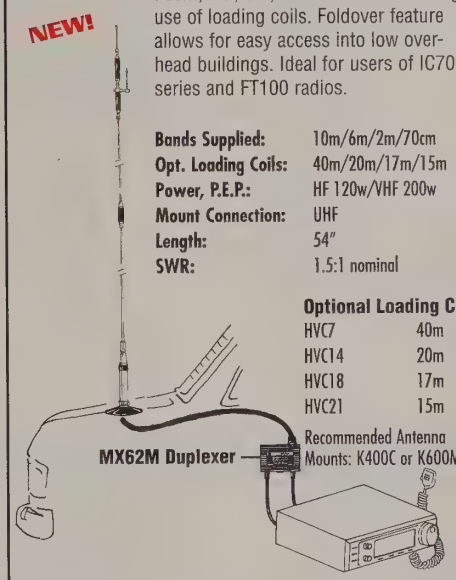
VHF/UHF And HF/VHF Mobile Antennas– Maximum Performance Without Compromise

You've seen the rest...now own the BEST!

SG2000HD | SG7500A SG7500NMO | SG7900A | SGM911 | NR72BNMO | NR73BNMO | NR770HA NR770HB | NR770HNMO NR770HBNMO | CR627B CR627BNMO

HV7A Mobile Antenna System

For New HF/VHF transceivers (Such as: IC706 series and FT100)



The NEW HV7A has 5 band capability: 70cm, 2m, 6m, and 2 HF bands through use of loading coils. Foldover feature allows for easy access into low overhead buildings. Ideal for users of IC706 series and FT100 radios.

Bands Supplied:	10m/6m/2m/70cm
Opt. Loading Coils:	40m/20m/17m/15m
Power, P.E.P.:	HF 120w/VHF 200w
Mount Connection:	UHF
Length:	54"
SWR:	1.5:1 nominal

Optional Loading Coils

HVC7	40m
HVC14	20m
HVC18	17m
HVC21	15m

Recommended Antenna Mounts: K400C or K600M

SPECIAL FEATURES:

- Factory pre-tuned/no adjustment
- Highest Performance antennas
- NMO and UHF (PO) base styles
- 24 Kt gold plated connector pin
- No grounding required unless noted
- Fold-over feature on most models

FOLD-OVER

Patented One-Touch Fold-over Feature (Not available on NR72BNMO, NR73BNMO, & NR770SA.)

MODEL	BAND (MHz)	GAIN (dB)	WATTS	CONN.	HT. IN.	ELEMENT PHASING
MR77	2m/70cm	2.15/3.4	70	MAG	20	1/4λ, 1/2λ
NR72BNMO*6	2m/70cm	2.15	100	NMO	13.8	1/4λ, 1/2λ
NR73BNMO	2m/70cm	2.15/5.3	100	NMO	33.5	1/2λ, 1-5/8λ
NR770HA7	2m/70cm	3.0/5.5	200	UHF	40.2	1/2λ, 2-5/8λ
NR770HNMO8	2m/70cm	3.0/5.5	200	NMO	38.2	1/2λ, 2-5/8λ
NR770RA	2m/70cm	3.0/5.5	200	UHF	38.6	1/2λ, 2-5/8λ
SG7000A*6	2m/70cm	2.15/3.8	100	UHF	18.5	1/4λ, 6/8λ
SG7500A	2m/70cm	3.5/6.0	150	UHF	40.6	1/2λ, 2-5/8λ
SG7500NMO	2m/70cm	3.5/6.0	150	NMO	41.0	1/2λ, 2-5/8λ
SG7900A*	2m/70cm	5.0/7.6	150	UHF	62.2	7/8λ, 3-5/8λ
SGM510	2m/70cm	2.15/5.5	100	UHF	37	1/2λ, 2-5/8λ

* Not recommended for Magnet Mount
6 Grounding required.
7 NR770HB same specifications but in black finish.
8 NR770HBNMO same specifications but in black finish.
9 52-54MHz only
1/4λ rated in dBi.

MODEL	BAND (MHz)	GAIN (dB)	WATTS	CONN.	HT. IN.	ELEMENT PHASING
NR2C	2m	4.1	150	UHF	55.5	1/2λ+1/4λ
SG2000HD*	2m	5.2	250	UHF	62.6	1/2λ+3/8λ
CR320A*6	2m/1-1/4m 70cm	2.15/3.8 5.5	200/100 200	UHF	37.4	1/4λ, 1/2λ 2-5/8λ
CR627B*6,9 CR627BNMO*6,9	6m/2m 70cm	2.1/4.5 7.2	120	UHF/NMO	60	1/4λ, 1/2+1/4λ 2-5/8λ
HF6FX*6	6m	2 dBi	250	UHF	40	1/4λ
HF50CX*6	6m	3.5 dBi	200	UHF	75	3/8λ
NR22L*	2m	6.5	100	UHF	96.8	2-5/8λ
NR2000NA	2m/70cm 23cm	3.15/6.3/9.7	100	N	39	1/2λ, 2-5/8λ 5-5/8λ
M285	140-174	3.4	200	UHF	52.4	5/8λ
M685*6	6m	2.15 dBi	200	UHF	52.4	1/4λ
MG200	2.4GHz	7 dBi	-	N	23.6	3-1/2λ
SGM911*6,9	6m/2m/70cm	2.15/3/5.8	60	UHF	41	1/4λ, 1/2λ,2-5/8λ

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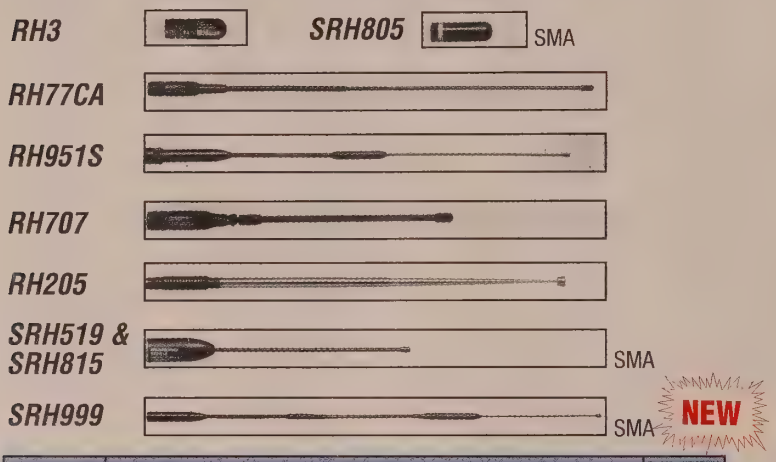
DIAMOND Antenna Accessories

High Efficiency HT & Scanner Antennas
HF Multiband Vertical Antenna
Duplexers & Triplexers
Dummy Loads & Coaxial Switches

RH Series

High quality, high gain HT antennas for mono, dual, and tri-band handheld radios. Available in both BNC and SMA connections. Increase the performance on your handheld or wideband scanner with a Diamond RH Series antenna.



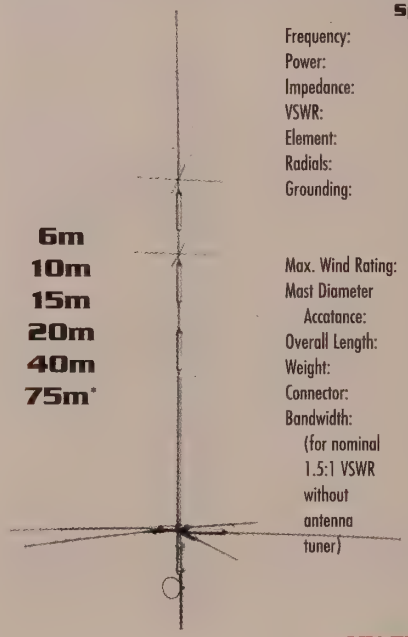
MODEL	DESCRIPTION	RELATIVE GAIN*
D130J	Wideband discone 25-1300 MHz. 200 W transmit 50-1300 MHz. No cable.	N/A
RH3	2m/70m dual band "Black Bullet" HT antenna. 1.75" BNC. 120 to 900 receive	-2 dB
RH77CA	High gain 2m/70cm dual band HT antenna. Receive range to 900 MHz. BNC.	+6 dB
RH205	2m HT antenna, telescopic, 5/8λ fully extended, 47.5"; 1/4λ retracted, 9"	+9 dB
RH519	2m/70cm slim dual-band HT antenna. Flexible. 8" BNC, 10 watts.	+3 dB
RH707	2m/70cm dual-band -tiltable whip – HT antenna. 8 1/4" BNC.	+3 dB
RH951S	High gain 2m/70cm/23cm slim tri-band HT antenna. Flexible. BNC (Wide band receive)	+6 dB
SRH519	2m/70cm dual-band HT antenna. Flexible. 8" SMA, 10 watts.	+3 dB
SRH805	2m/70cm/23cm tri-band HT antenna. 1.75" SMA, 10 watts.	-2 dB
SRH815	2m/70cm/23cm tri-band HT antenna. Flexible. 6" SMA, 10 watts.	+3dB
SRH999	6m/2m/70cm/23cm quad-band HT antenna. Flexible. 19.5" SMA, 10 watts.	+3dB

*Rated against typical stock HT antennas.

CP6A HF MULTIBAND VERTICAL

The New CP6A multi-band trap-vertical antenna for HF bands, covering the 75*, 40, 20, 15, 10 and 6m amateur bands. Made from heavy-duty aluminum, the CP6A assembles easily, yields excellent performance and reliability from a compact base station antenna. Its compact size allows for many mounting options. Minimum 15 feet diameter required for mounting radials. No additional ground radials required. Mounting hardware included.

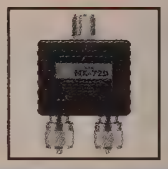
*75m requires a tuner.



Specifications

Frequency:	75*/40/20/15/10/6m	
Power:	200w PEP	
Impedance:	50Ω	
VSWR:	1.5:1 nominal	
Element:	1/4 wave trap vertical	
Radials:	Trap design, six	
Grounding:	Direct grounding. Antenna element & radials connected to mounting pipe.	
Max. Wind Rating:	80mph (no ice)	
Mast Diameter Accatance:	1.2-2.4"	
Overall Length:	15.10' (4.6m)	
Weight:	9.9lbs. (4.9kg)	
Connector:	SO-239 female UHF	
Bandwidth: (for nominal 1.5:1 VSWR without antenna tuner)	75m	20kHz
	40m	40kHz
	20m	100kHz
	15m	200kHz
	10m	500kHz
	6m	3.5MHz

MX-72D

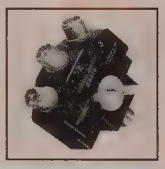


MX-72H/N

DL30A/DL30N

CX210A/CX210N

CX310A



MODEL	DESCRIPTION
CX210A	Heavy duty wideband coax switch, DC-1000 MHz. 1.5 kW, SO-239
CX210N	Heavy duty wideband coax switch, DC-1500 MHz. 1.5 kW, Type N
CX310A	Heavy duty wideband coax switch, 3 position, DC–800MHz, SO–239
DL30A	Dummy load, DC-500 MHz. 15w average/100w peak. PL-259
DL30N	Dummy load, DC-500MHz. 15w average/100w peak. Type N

Duplexers/Triplexers

MODEL	MX72D	MX72H	MX72N	MX2000			MX62M	
FREQUENCY BAND (MHz)	LPF 1.6-30	140-150	HPF 400-460	LPF 1.6-60	BPF 110-170	HPF 300-950	LPF 1.6-56	HPF 76-470
PWR CW (ICAS) WATTS P.E.P.	400 1000	150 400	100 250	800	800	500	600	
THRU LOSS/dB	0.15	0.15	0.25	0.15	0.2	0.25	0.2	0.3
ISOL	60dB			60dB			50dB	
VSWR	1.2:1			1.2:1			1.2:1	
CONNECTOR COMPLEMENT	(M) MIX 144 430 (M) (M)	(M) MIX 144 430 (M) (M)	(M) MIX 144 430 (M) (N)	(M) MIX 50 144 430 (M) (M) (M)			(M) MIX HF VHF (M) (M)	
CONNECTOR	Direct	12" Cable w/Connectors		12" Cable w/Connectors			12" Cable w/Connectors	

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DIAMOND'S Premium Antenna Mounts & Cable Assemblies

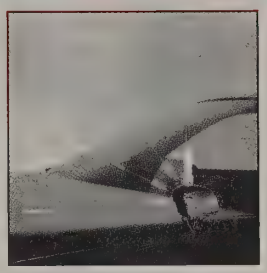
Designed for today's high performance antennas

K9000
Motorized Mount

Raise and lower your antenna with a touch of a button. Vertical adjustment 0-9º. Accepts "ground independent" antennas up to 45". Recommended antennas: SG7500NMO, NR73BNMO, SG7500A, NR2C and NR770 series.

K9000TM Trunk/Hatchback Mount
K9000LRM Luggage Rack Mount

** Use C-Series cable assemblies.*



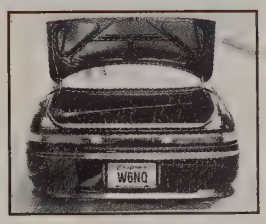
K412
Light Duty Hatchback/ Door Trunk Lid Mount

NEW!

Two-axis adjustable mount for light weight antennas. 1.5 inch mounting width. Ideal for tight mounting options. Recommended for antennas under 45".

K412C SO-239 base, 6.5' coax & PL-259
K412CNMO NMO base, 6.5' coax & PL-259

** Use C110 for front radio installations.*



K601
Hide-Away Mount

Folds antenna safely into trunk. Fully adjustable, fits most vehicles. Recommended antennas: NR2C, NR73BNMO, NR770HNMO, NR770HA, NR70HBNMO, NR770HB, NR770RA, SG7500A, SG7500NMO and SGM510.

K601M SO-239 base, 6.5' coax & PL-259
K601NMO NMO Base, 6.5' coax & PL-259

** Use C110 for front radio installations.*

K600
Variable Angle Trunk Mount

Deluxe aerodynamic trunk mount. Vertical adjustment 0-9º. 4" wide mounting base with 4 set screws for maximum strength. Recommended for high gain VHF/UHF antennas.

K600M SO-239 base, 16.5' coax & PL-259

K550
Luggage Rack Mount

Adjustable luggage rack mount for new mini vans. Recommended for antennas under 45".

K550KM SO-239 base, 13' coax & PL-259
K550 Mount Only

K400
Hatchback/Door Truck Lid Mount

Diamond's deluxe heavy duty mount. Two-axis adjustable. 4" wide mounting base with 4 set screws for maximum strength. Recommended for high gain VHF/UHF antennas.

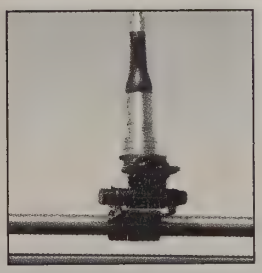
K400C* SO-239 base, 6.5' coax & PL-259
K400CNMO* NMO base, 6.5' coax & PL-259

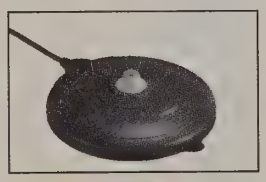
** Use C110 for front radio installations.*

K540
Mirror/Luggage Rack Mount

Adjustable Mirror/Luggage rack mount accepts 1/2" to 7/8" tubing. Fits most mirrors and utility racks. Recommended for antennas under 45".

K540KM SO-239 base, 13' coax & PL-259
K540 Mount Only

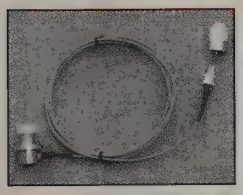




K702M
Magnet Mount Base

Deluxe low profile magnet mount with high holding power. Aerodynamic styling, large 6 3/8" diameter, 3/4" height. For VHF/UHF antennas up to 50" height. Includes thin mylar protective sheet to enhance grip and protect vehicle paint. Cable: 13' RG58A/U & PL-259.

C-SERIES CABLE ASSEMBLIES



C101
SO-239 base, 6.5' RG316 Teflon coax & PL-259. Ideal cable assembly for trunk mount radios.

C101NMO
Same as C101 with NMO base. For Diamond's K-Series mounts.

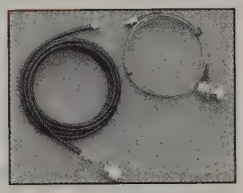
C213
Same as C101, 13.5' length.

C213NMO
Same as C101NMO, 13.5' length.

C110
Extension for C101. 10' RG8X coax w/mini UHF Conn. Use C110 to extend cable for front radio installations.

C110BNC
10' assembly similar to above, uses RG316 Teflon coax terminating in BNC-male.

C110SMA
Similar to C110BNC, terminating in SMA male.



C211
SO-239 base, 16.5' cable assembly & PL-259. Combination of C101 & C110.

C104SMA
4' extension cable for HT's with SMA connector. For existing cable assemblies with PL-259. UHF female (SO-239) to right angle SMA male.

C105SMA
5' extension cable for C101. RG58/U cable, terminating in right angle SMA male.

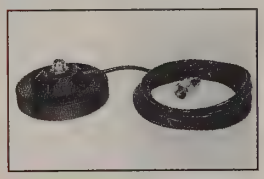
K400-3/8 C
Special Trunk Mount for 3/8 x 24 Thread Antennas

Ideal mount for Outbacker Perth, OB Jr., and other medium weight antennas.

Note: Use C110, 10ft extension for front radio installation

Adjustment:	2 axis
Power:	350 watts RMS 500 w P.E.P.
Cable	6 1/2' RG316 Teflon coax w/PL-259

Spring recommended for stiff/heavy antennas



SPM35
Magnet Mount Base

Heavy duty 2.2 lb./4" magnet mount rated 25-500 MHz. Cable: 13' coax and PL-259. Recommended for antennas under 45".

SPM-NMO
Magnet Mount Base

Similar to the SPM35, but has NMO mount.

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GAP: THE PERFECT ANTENNA

We at GAP realize there isn't a perfect antenna. No singular antenna will scream DX on 80 and be the best for local nets on 10. If anyone tells you there is, beware! The perfect antenna does not exist, but the right one for you may. If you want something to bust the pile on the low bands, then consider the Voyager. Just starting out in ham radio and need a great general coverage antenna, the Challenger is easy to assemble and for little effort will yield superior performance, especially on DX. Maybe you knowingly or unknowingly moved into one of those "restricted areas" where the Eagle's limited visibility, but unlimited ability is desired.

Eagle DX

Challenger DX

Voyager DX

This chart helps you select the right GAP antenna. W hen comparing GAPs, bandwidth is not a concern. With few exceptions, a GAP yields continuous coverage under 2:1 for the **ENTIRE BAND**.

All antennas utilize a GAP elevated asymmetric feed. A major benefit is the virtual elimination of the earth loss, so more RF radiates into the air instead of the ground. This feed is why a GAP requires **NO RADIALS**. Just as elevating a GAP offers no significant improvement to its performance, adding radials won't either, making set up a breeze.

A GAP antenna has no traps, coils or transformers. This is important. The greatest sources of failure in multiband antennas are these devices. Perhaps you heard someone discuss a trap that had melted, arced or became full of water. Improvements to these inherent problems are the focus of the antenna manufacturer, while the basic design of the antenna remains unchanged. **GAP improved the trap by eliminating it!** Removing these devices means they don't have to be tuned and, more importantly, won't be detuned by the first ice or rain. The absence of these devices improves antenna reliability, stability and increases bandwidth.

Another major advantage to a GAP antenna is its NO tune feature. Screws are simply inserted into predrilled holes with a supplied nutdriver.

The secret is out and people in the know say:

CQ–"The GAP consistently outperformed base-fed antennas. .and was quieter."

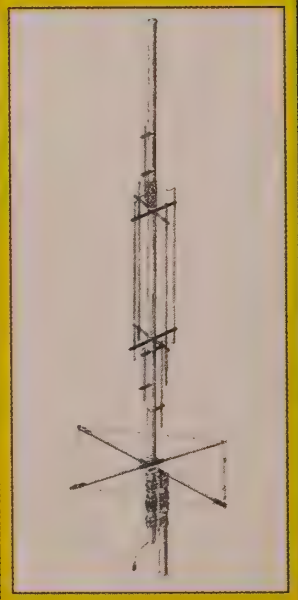
73–"This is a real DX antenna, much quieter than other verticals."

RF–"To say this antenna is effective would be a real understatement. Switching back and forth on 40m between another multiband HF vertical and the GAP, there was no comparison. Signals were always stronger on the GAP, sometimes by S units, not just DB's."

Worldradio – "These guys have solved the problem associated with verticals. That is, an awful lot of RF is wallowing around and dropping into the dirt instead of going outward bound. A half-wave vertical does need radials if it is end fed (at the bottom). But the same half-wave vertical does not (as much, hardly at all) if is fed in the center."

IEEE–"Near field and power density analyses show another advantage of this antenna (asymmetric vertical dipole): it decreases the power density close to the ground, and so avoids power dissipation in the soil below it. The input impedance is very stable and almost independent of ground conductivity. This antenna can operate with high radiation efficiency in the MF AM standard broadcast band, without the classical buried ground plane, so as to yield easier installation and maintenance."

Latest Release: **TITAN DX**



This all purpose antenna is designed to operate 10m-80m, WARC bands included. It sits on a 1-1/4" pipe and can be mounted close to the ground or up on a roof. Its bandwidth and no tune feature make it an ideal antenna for the limited space environment as well as a terrific addition to the antenna farm.

MODEL	BANDS OF OPERATION											HT	WT	MOUNT	COUNTER-POISE
	2m	6m	10m	12m	15m	17m	20m	30m	40m	80m	160m				
Challenger DX	■	■	■	■	■		■		■	■		31.5'	21 lbs	Drop In Ground Mount	3 Wires @ 25'
Eagle DX			■	■	■	■	■		■			21.5'	19 lbs	1-1/4" pipe	80" Rigid
Titan DX			■	■	■	■	■	■	■	■		25'	25 lbs	1-1/4" pipe	80" Rigid
Voyager DX							■		■	■	■	45'	39 lbs	Hinged Base	3 Wires @ 57'

GAP

ANTENNA PRODUCTS, INC.
99 N. Willow Street
Fellsmere, FL 32948

tel: (561)-571-9922
web: gapantenna.com

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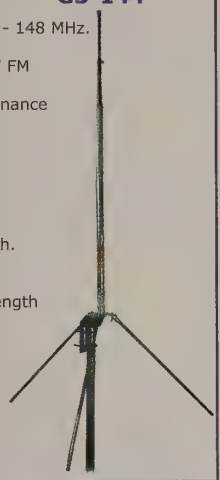
1-800-558-0411

*See Price List for **GAP** Quick-Tilt Mounts, Counterpoise and Guy Kit Prices*

VHF and UHF Omni Directional Fixed Station Vertical Antennas

Model G3-144

The G3-144 is the newest addition to the Hustler Base Station line. Designed with the cost conscious amateur in mind, this small, inexpensive antenna delivers more gain than other antennas in its price range. Ideal for a home or emergency command post.



Model G3-144

ELECTRICAL
- Frequency Range: 144 - 148 MHz.
- Gain: 3 dB
- Maximum Power: 1 KW FM
- Bandwidth: 6 MHz
- VSWR: < 1.5:1 @ resonance
- Impedance: 50 ohms

MECHANICAL
- Termination: SO-239
- Length: 7′ 5″
- Weight: 2.0 lbs
- Wind Survival: 100 mph.
- Wind Area: 0.5 ft.²
- Mounting: 1 to 1 ¾″
- Construction: High strength fiberglass & aluminum.

Model G6-270R Dual band 2 Meter & 440 MHz

G6-270R

ELECTRICAL
- Frequency range: 144-148 MHz, 430-450 MHz.
- Gain: 6 dB
- Maximum power: 100 Watts
- Bandwidth:
  2 MHz – 2 Meters
  10 MHz – 440 Meters
- VSWR: < 1.5:1 @ resonance
- Impedance: 50 ohms

MECHANICAL
- Termination: N female
- Length: 7′ 6″
- Weight: 5.3 lbs.
- Wind Survival: 100 mph
- Wind Area: 1.4 ft.²
- Mounting: Up to 1 ¾″
- Construction: one piece radome

Model G6-440

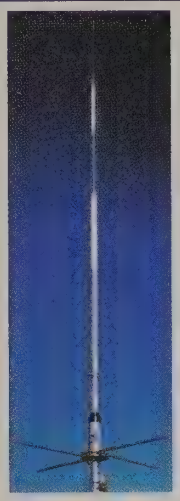
(see photo above)

ELECTRICAL
- Frequency range: 440 - 450 MHz.
- Gain: 6 dB
- Maximum power: 1 KW FM
- Bandwidth: 8 MHz.
- VSWR: < 1.5:1 @ resonance
- Impedance: 50 ohms

MECHANICAL
- Termination: Type N female
- Length: 7′ 3″
- Weight: 5.0 lbs.
- Wind survival: 100 mph.
- Wind Area: 1.4 ft.²
- Mounting: Up to 1 ¾″
- Construction: one piece radome

New-Tronics Antenna Corporation
One New-Tronics Place
Mineral Wells, Texas 76067-9563
Phone: **940.325.1386**
Toll Free: **877.994.9499**
Fax: **940.328.1409**

Model G7-144 Two Meter



The G7-144 is totally self supporting and is easily assembled. When disassembled the longest part is approximately 4′ which makes it easy to handle and ship via UPS.

ELECTRICAL
- Frequency Range: 144 - 148 MHz.
- Gain: 7 dB
- Maximum Power: 1 KW FM
- Bandwidth: 4 MHz.
- VSWR: < 1.5:1 @ resonance
- Impedance: 50 ohms

MECHANICAL
- Termination: N female
- Length: 15′ 4″
- Weight: 10.0 lbs.
- Wind survival: 100 mph
- Wind Area: 0.96 ft.²
- Mounting: Up to 1 ¾″
- Construction: High strength fiberglass & aluminum.

Model G6-144B Two Meter

(see photo above)

ELECTRICAL
- Frequency range: 143 - 149 MHz.
- Gain: 6 dB
- Maximum power: 1 KW FM
- Bandwidth: 6 MHz.
- VSWR: < 1.5:1 @ resonance
- Impedance: 50 ohms

MECHANICAL
- Termination: SO-239
- Length: 9′ 9″
- Weight: 6.8 lbs.
- Wind survival: 100 mph.
- Wind Area: 1.4 ft.²
- Mounting: Up to 1 ¾″
- Construction: High strength fiberglass & aluminum.

Model G7-220

(see photo above)

ELECTRICAL
- Frequency range: 220 - 225 MHz.
- Gain: 7 dB
- Maximum power: 1 KW FM
- Bandwidth: 5 MHz.
- VSWR: < 1.5:1 @ resonance
- Impedance: 50 ohms

MECHANICAL
- Termination: Type N female
- Length: 10′ 2″
- Weight: 7.0 lbs.
- Wind survival: 100 mph.
- Wind Area: 0.96 ft.²
- Mounting: Up to 1 ¾″
- Construction: High strength fiberglass & aluminum.

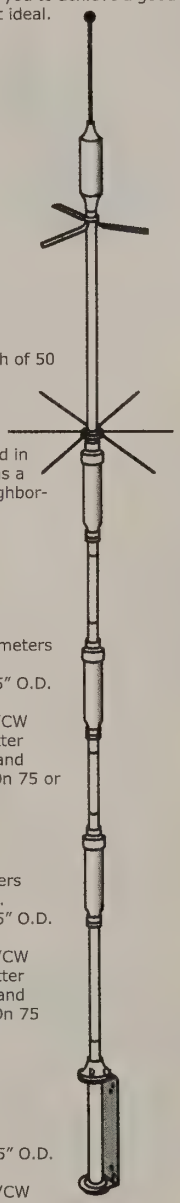
The Spirit Series

Omnidirectional base station antennas with a frequency range of 136 MHz to 2 GHz. These fiberglass enclosed antennas have significant advantages over exposed element arrays and provide better electrical performance. We offer three models HS, HD, and HX depending on the application. When ordering specify frequency and dB gain requirement. Not all dB gains are available with all frequencies. CALL AES FOR A QUOTE.

Fixed Station Multi-Band HF Vertical Antennas

Our exclusive trap design offers the lowest loss possible. A special extrusion process allows us to produce trap covers to an otherwise unattainable close tolerance, assuring accurate and permanent resonance. Our highly accurate traps provide top signal reports and consistent contacts.

Accurate tuning is made possible by the wide range of tuning flexibility designed into our verticals. Not only can you use the normal adjustable tubing to change resonance, but the traps themselves can be field tuned for an additional 2 MHz. shift. This flexibility will enable you to achieve a good S.W.R. even if your installation is not ideal.



- Broadbanded – low VSWR at band edges
- Power capability – full legal limit on SSB or CW
- Solid one inch fiberglass trap forms for optimum electrical and mechanical stability
- Heavy wall, high strength aluminum tubing, heavy duty aluminum mounting bracket and low loss, high strength insulators.
- Stainless steel clamps and hardware.
- Easy assembly and tuning.
- Single line feed with any length of 50 ohm coax.
- Use as ground mount with or without radials, or elevated mount with radials.
- All of the BTVs can be mounted in a piece of PVC and disguised as a flagpole in deed restricted neighborhoods.

Model 6-BTV

Bands 10-15-20-30-40 & 75 or 80 meters
Length/weight 24 ft. / 16.5 lbs.
Mounting Vertical support up to 1.75″ O.D.
Wind Load 29 lbs. @ 70 mph.
Power capability Full legal limit SSB/CW
VSWR at resonance 1.15 to 1 or better
Bandwidth VSWR 2:1 or better at band edges on 10-40 meters (100 KHz. On 75 or 80 meters)

Model 5-BTV

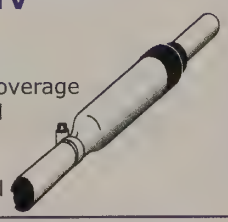
Bands 10-15-20-40 & 75 or 80 meters
Length/weight 25 ft. 1 in. / 16.5 lbs.
Mounting Vertical support up to 1.75″ O.D.
Wind Load 29 lbs. @ 70 mph.
Power capability Full legal limit SSB/CW
VSWR at resonance 1.15 to 1 or better
Bandwidth VSWR 2:1 or better at band edges on 10-40 meters (100 KHz. On 75 or 80 meters)

Model 4-BTV

Bands 10-15-20-40 meters
Length/weight 21 ft. 5 in. / 15 lbs.
Mounting Vertical support up to 1.75″ O.D.
Wind Load 28 lbs. @ 70 mph.
Power capability Full legal limit SSB/CW
VSWR at resonance 1.15 to 1 or better
Bandwidth VSWR 1.6:1 at band edges

30 Meter Add-on Kit for 4-BTV and 5-BTV

Model 30-MTK



Full 30 meter band coverage
Will not affect normal operation
Easy installation
All hardware included

www.new-tronics.com

HUSTLER®

VHF and UHF Mobile Antennas

MX Series NMO Magnetic Mount Antenna

- 3.4 dB gain, 144 - 149 MHz
- Power rating: 200 watts
- NMO style magnetic mount.

MX-220
220 MHz., black & chrome
MX-440
440 MHZ 5 dB gain
MX-2
2 meter, black and chrome
⇐ **MX-2B**
2 meter, all black

Unity Gain

THF
VHF/UHF Trunk Lip Mount Antenna

UHT-1
VHF/UHF Roof/Deck Mount Antenna

Collinear

CGT-220
5.2 dB Gain 5/8 λ over 1/4 λ for collinear trunk lip mount antenna.

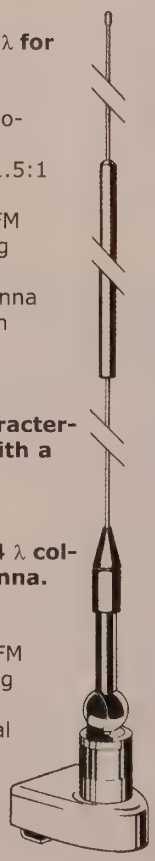
- 1.1:1 SWR (typical) at resonance
- 4 MHz. Bandwidth under 1.5:1 SWR
- Power Rating: 200 watts FM
- Height: 4 ft. 9 in. including mount
- Spin knob to remove antenna
- 17 ft. of low loss coax with connector

CG-220 (not pictured)
This model has identical characteristics at the CGT-220 but with a 3/8 x 24 threaded base.

CGT-144 (as pictured)
5.2 dB Gain, 5/8 λ over 1/4 λ collinear trunk lip mount antenna.

- 6 MHz bandwidth
- 1.5:1 SWR
- Power rating: 200 watts FM
- Length: 7 ft. 1 in. including mount
- 180° swivel ball for vertical positioning
- 17 ft. coax with connector

CG-144 (not pictured)
Same as CGT-144 but has 3/8" x 24 threaded base.



Dual Band 2 meter/ 70cm Mobile Antennas

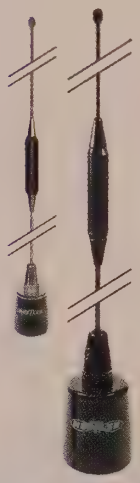
Hustler's new Dual Band antennas are designed to perform even in the toughest environments. Base coils are ultrasonically welded to ensure mechanical integrity and durability. Coils and contacts are silver plated for excellent electrical connections.

MX-270 (far right)

- 2.4 dB/ 4dB gain
- Power Rating: 100 watts
- NMO style magnetic mount

MX-270B (near right)

Black version of MX-270, and uses high quality black power paint.



Check out our prices!

LMC-270* (far left)

- 2.4 dB/ 4dB gain
- Power Rating: 100 watts

LMB-270* (above)
Black version of above, and uses high quality black power paint.

BBG-144 (far right)
& BBGT-144

- 3.4dB gain
- Power rating- 200 watts
- NMO style coil
- includes swivel ball and spring

BBGT-440-5
& BBG-440-5

- 440 MHz versions of above
- 5dB Gain

BBGT models include trunk mount and 17' RG-58 coax ⇒

LMB, LMC, LMG and BBG
Antennas are coil & whip only and require a NMO mount. All 144 models are 2m.

LMG-144

- 3.4 dB gain
- Power rating: 200 watts
- NMO style coil
- Contact: silver plated push pin

LMG-440-5

- 440 MHz version of above
- 5db gain
- Power rating: 200 watts
- NMO style coil
- Contact- silver plated push pin

LMB-144

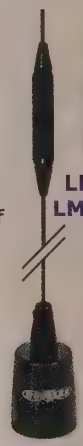
- 3.4dB gain
- Power rating: 200 watts
- NMO style coil
- All Black

LMB-440-5

- 440 MHz version of above
- 5db gain
- Power rating: 200 watts
- NMO style coil
- All Black

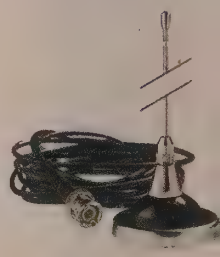
NOTE: All NMO style antennas available in frequency ranges 150-174 MHz and 450-470 MHz

LMG-144
LMG 440-5



LMB-144
LMB 440-5

UGM
VHF/UHF Magnetic Mount Antenna
Extend the range of handheld or portable radios. Trimmable 17-7 PH stainless steel radiator is cut to ¼ wavelength for low SWR and unity gain from 140 to 500 MHz. Trim chart included. Highly efficient mylar protected magnetic mount attaches conveniently to magnetic compatible surfaces. No drilling! Supplied ready for operation with 10 ft. of mini-coax with BNC connector.



SF-2
Low Cost 3.4 dB Gain, 2 meter 5/8 λ for 3/8" x 24 thread mounts.

- 1.2:1 SWR at resonance
- Power rating: 100 watts FM
- Tapered stainless radiator
- Length: 4 ft.

SF-220
Low cost 3.4 dB gain 220 MHz. 5/8 λ for 3/8" x 24 thread mounts.

SF-2

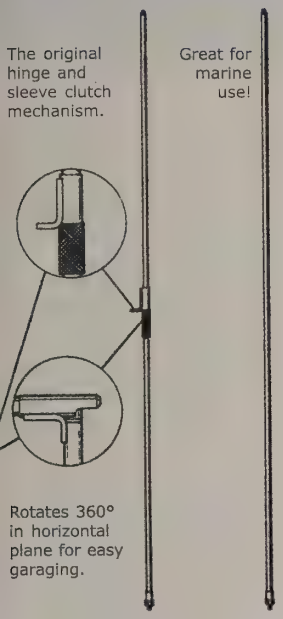
MKR-2 Radial Kit
Contains three de-coupling radials and mount to convert series fed mobile VHF antennas to fixed operation. Performance is comparable to many regular base antennas. Suitable for permanent installations of portable use. Heavy duty zinc plated mast bracket and hardware. Accepts antennas with standard 3/8" x 24 threaded base.

MKR-2

New-Tronics Antenna Corporation
One New-Tronics Place
Mineral Wells, Texas 76067-9563

Phone: **940.325.1386**
Toll Free: **877.994.9499**
Fax: **940.328.1409**

mateur HF Mobile 10, 12, 15, 17, 20, 30, 40, 75 and 80 Meters



If you are serious about HF mobile operation the **Hustler** HF Mobile System is the obvious choice. **Hustler** manufactures and sells more HF mobile antennas world wide than anyone. No other manufacturer offers the convenience, the flexibility or the pure performance that **Hustler** does. Our HF Mobile System offers a wide variety of components which enable you to customize your installation to fit your present and future needs. A choice of four different support masts provides an installation solution for every vehicle. A selection of seventeen interchangeable resonators in high and moderate power levels and varying bandwidths are available. A full complement of accessories such as springs, a multiband adapter and a quick disconnect device complete the system. Experience the satisfaction that comes with owning the best in the world — the **Hustler** HF Mobile System.

MO-4

Mobile HF Antennas

Hustler Masts

MO-1
Mobile mast 54" high, for deck or fender mounting. Folds over at 15" above base. Made of highest quality heat treated aluminum and chrome plated brass.

MO-2
Mobile mast, 54" high, for bumper mounting. Folds over at 27" above base.

MO-3
Mobile mast, 54" high, solid aluminum with white vinyl coating. Does not fold over.

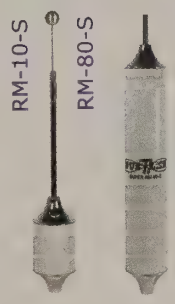
MO-4
HF Mobile mast only 22" long. Suitable for trunk or deck mounting. Included three new tip rods. 3/8" X 24 threads on both ends.

ustler Resonators

tandard Resonators

ower rating – 400 watts SSB

art	Description	Approximate Bandwidth (KHz.) 2:1 SWR or Better
M-10	10 Meter	150-250
M-11	11 Meter	150-250
M-12	12 Meter	90-120
M-15	15 Meter	100-150
M-17	17 Meter	100-150
M-20	20 Meter	80-100
M-30	30 Meter	50-60
M-40	40 Meter	40-50
M-75	75 Meter	25-30
M-80	80 Meter	25-30



Super Resonators

Power rating – full legal limit. Super Resonators also offer wider bandwidth, especially on 40, 75 and 80 meters.

Part	Description	Approximate Bandwidth (KHz.) 2:1 SWR or Better
RM-10-S	10 Meter	250-400
RM-11-S	11 Meter	250-400
RM-15-S	15 Meter	150-200
RM-20-S	20 Meter	100-150
RM-40-S	40 Meter	50-80
RM-75-S	75 Meter	50-60
RM-80-S	80 Meter	50-60

rofessional Series Heavy Chrome

odel C-32

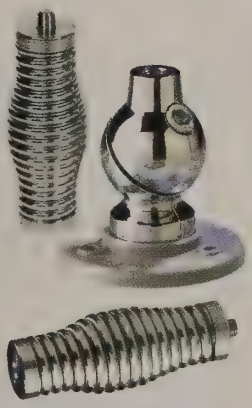
ustler professional ball mount. Furnished omplete with rubber pad, steel backup plate, l mounting hardware, and a hex wrench.

-29

tainless steel, corosion resistant and lectroplated spring omplete with 3/8" x 4 coupling stud.

-30

hrome plated steel pring complete ith 3/8" x 24 oupling stud.



Resonator Spring

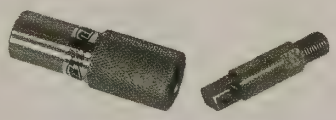
RSS-2

Finest quality stainless steel spring for use between resonator and Hustler antenna mast. This ¾" x 3" x ½" spring absorbs shock when the antenna strikes overhanging obstructions. Supplied ready for easy installation with 3/8" x 24 threads, female on one end, and male on the other.

Quick Disconnect

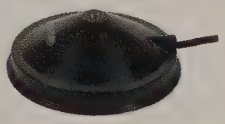
QD-2

100% Stainless Steel. Remove antenna from mount in seconds with push and twist release. Every part including the compression spring is manufactured from the best available 100%



stainless steel. Special design of enclosed compression and lock assembly assures freedom against ice and dirt jam up. Accommodates small, medium and large mobile antennas. Equipped with 3/8" x 24 threads, female on one end and male on the other.

MBM "Super" Magnet



- 95 lbs. Pull strength
- Powerful 5 inch diameter magnet
- 16 feet RG 58 coax with PL-259 connector.
- 3/8" x 24 female threads
- Recommended for antennas up to 48" in length.

Stainless Steel Mounts

- Exceptional performance and quality
- 180° adjustable reinforced stainless steel ball.
- Professional quality Lexan base for greatest mechanical stability
- Exclusive "C" backup plate allows external installation
- Supplied with all mounting hardware and cork pad
- Applicable with all Hustler and other 3/8" x 24 thread.

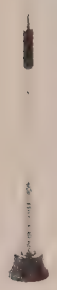
Bumper Mount BM-1

Design is rugged for supporting Hustler antennas with the Standard or Super resonators. Heavy stainless steel strap, stronger than chain, fits most bumpers inconspicuously. Assembly is easily installed and held rigid by "J" bolts at the top and a bumper strap clamp at the bottom.

SSM-1 Professional Ball Mount and Spring.
SSM-2 Ball mount.
SSM-3 Stainless Steel Spring with Coupling Stud.

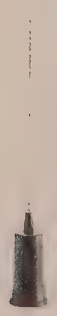
Dual Band Series

Larsen dual band antennas provide excellent performance for simultaneous use of VHF and UHF amateur frequencies. Each Larsen dual band antenna is factory preset to guarantee optimum performance with no tuning required.



NMO-2/70-SH $38.99
Freq: 144-148/440-450 MHz
Gain: Unity
Power: 100 Watts
Type: VHF: Center Loaded 1/4
UHF: Center Loaded 3/4
Base: NMOUHFBASEB w/spring
Height: 17"
Whip: WNMO2/70SH
Lower profile amateur 2m/70cm dual band antenna with spring for NMO mounts.

NMO-2/70B (black) $64.99
Freq: 144-148/440-450 MHz
Gain: 2.4/4dB
Power: 100 Watts
Type: VHF: 5/8 Wave
UHF: Collinear
Base: NMO2/70BCO
Height: 33.5"
Whip: W2/70B
Amateur 2m/70cm dual band antenna for NMO mounts. Available in chrome (below).



NMO-2/70C (chrome) $59.99
Freq: 144-148/440-450 MHz
Gain: Unity
Power: 100 Watts
Type: VHF: 5/8 Wave
UHF: Collinear
Base: NMO2/70BCO
Height: 36.75"
Whip: W2/70
Amateur 2m/70cm dual band antenna for NMO mounts. Available in black (above).

MM-2/70 ..... $48.99
Freq: 144-148/440-450 MHz
Gain: Unity
Power: 100 Watts
Type: VHF: Center Loaded 1/4
UHF: Center Loaded 3/4
Base: 3' Round Mag Mount
Height: 17"
Whip: WNMOQ2/70B
Complete 2m/70cm magnetic moung antenna with 12' of RG58A/U coax.

NMOQ-2/70-B (black) $34.99
Freq: 144-148/440-450 MHz
Gain: Unity
Power: 100 Watts
Type: VHF: Center Loaded 1/4
UHF: Center Loaded 3/4
Base: NMOUHFBASEB
Height: 18"
Whip: WNMOQ2/70B

Kulglass Series

Larsen's Kulglass™ (KG) series uses a patented low impedance design and advanced materials to produce the world's best on-glass antenna. The KG uses advanced resin polymer plastic to completely enclose the circuit board or loading coil for mechanical durability and weather resistance. 3M's best adhesive tape, plus Larsen's unique bonding enhancer ensure the best possible grip to the glass.

KG-2/70-CX-PL $111.99
Freq: 144-148/442-448 MHz
Gain: 2.4/4.5dB*
Power: 50 Watts
Type: VHF: 1/2 Wave
UHF: Collinear
Base: KG2/700/S
Height: 32.5"
*Ground plane required for gain
Glass mount dual band antenna for 2m/70cm amateur radio frequencies.

KG-144-UD-PL $76.99
Freq: 144-160 MHz
Gain: 2.4dB
Power: 100 Watts
Type: 1/2 Wave
Base: KG1440/S
Conn: PL-259
Height: 48"
Whip: WKG144
Complete KG glass mount antenna.

KG-220-UD-PL $76.99
Freq: 220-225 MHz
Gain: 2.4dB
Power: 100 Watts
Type: 1/2 Wave
Base: KG2200/S
Conn: PL-259
Height: 26.5"
Whip: WKG220
Complete KG glass mount antenna.

KG-440-UD-PL $70.99
Freq: 440-460 MHz
Gain: 2.4dB
Power: 100 Watts
Type: 1/2 Wave
Base: KG4400/S
Conn: PL-259
Height: 15"
Whip: WKG440
Complete KG UHF glass mount antenna with coax and connector.

Kulduckie Portable Series

Superior transmit range and tough mechanical durability are the hallmark of Larsen portables. All center cores are made of brass or copper plated steel to maximize RF emission. Fully soldered connections and silver-plated components improve electrical efficiency. Double spring BNC's also reduce wear on the mount. Other mounting styles available.

KD4-146 ..... $19.99
Freq: 144-148 MHz
Gain: Unity
Power: 25 Watts
Type: 1/4 Wave Helical
Conn: BNC
Height: 8"

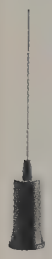
KD4-146-HQ (2m) $24.99
Freq: 144-148 MHz
Gain: Unity
Power: 25 Watts
Type: 1/4 Wave Helical
Conn: BNC
Height: 8"

KD-14-2M-HW $37.99
Freq: 144-148 MHz
Gain: Unity
Power: 25 Watts
Type: 1/2 Wave Telescoping
Conn: BNC
Height: 8.5 to 42"
Whip: WKD142MHW

KD4-2/70 ..... $33.99
Freq: 144-148/442-448 MHz
Gain: Unity
Power: 25 Watts
Type: VHF: Loaded 1/4 Wave
UHF: 1/4 Wave
Conn: BNC
Height: 8"
Impedance matching transformer provides high Q and deeper resonance.

NMO Mobile Antennas

Larsen's own version of the standard 3/4" Motorola TAD/TAE type mount uses advanced design, materials and construction to provide a premium mount. For demanding outdoor applications, the chemical resistant NMO series is housed in a resin polymer plastic shell which is completely molded around the nickel plated brass whip stud to eliminate moisture damage. Our superseal gasket also greatly reduces water intrusion under the base.



NMO-27C (chrome) $33.99

Freq: 27-31 MHz
Gain: Unity
Power: 200 Watts
Type: Loaded 1/4 Wave
Base: NMO27BCO
Height: 53"
Whip: W490

NMOQ-SPEC $12.99

Freq: 136-512 MHz
Gain: Unity
Power: 200 Watts
Type: 1/4 Wave
Height: 21"

NMO-150C (chrome) $30.99
NMO-150B (black) $33.99

Freq: 144-174 MHz
Gain: 3dBd
Power: 200 Watts
Type: 5/8 Wave
Base: NMO150BCO
Height: 51.75"
Whip: W490

NMO-220C (chrome) $30.99
NMO-220B (black) $36.99

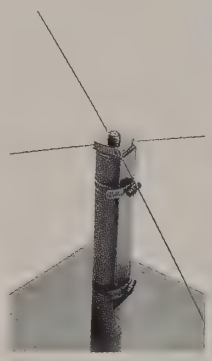
Freq: 220-225 MHz
Gain: Unity
Power: 200 Watts
Type: 5/8 Wave
Base: NMO220BCO
Height: 34.5"
Whip: W400

NMO-440C (chrome) $29.99
NMO-440B (black) $35.99

Freq: 440-460 MHz
Gain: 4.5dBd
Power: 200 Watts
Type: 5/8 over1/2 Wave
Base: NMOUHFBASEB
Height: 33""
Whip: W154

Base Station Antennas

Larsen manufactures a variety of small base station for directional and omni-directional applications. Each base station antenna is designed with premium materials to withstand the most demanding weather conditions. All base station antennas come with mounting hardware to attach to a pole up to 2" in diameter.



BSA-K $50.99

Freq: 144-512 MHz
VSWR: 1.5:1 or less
Power: 200 Watts
Conn: UHF Female
Whip: 51-3/4"

Complete base station kit for designing a base station unit from 144-512 MHz. Comes with mounting hardware (antenna is extra). Works with NMO and UHF mount antennas.

Mounts

Larsen has a full line of permanent and temporary mounts to solve nearly every installation problem. Each mount is manufactured of the highest quality materials, including premium coax.

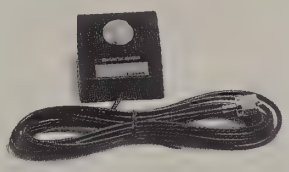
NMO-K $15.99

Motorola style roof mount

Size: 3/4"
Coax: 17' RG-58A/U
Conn: PL-259

NMO-MM $31.99

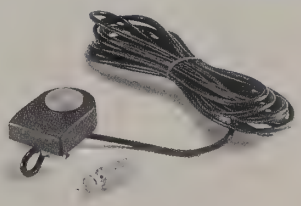
Motorola style magnetic mount



Size: 3-1/2" x 3" Rectangle
Coax: 12' RG-58A/U
Conn: 58FCP
Pull Strength: 90 lbs.

NMO-TLP $29.99

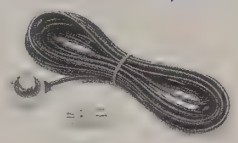
Motorola style trunk lip bracket, black



Size: 1-3/4" x 1-3/4"
Coax: 17' RG-58A/U
Conn: PL-259

PO-K $27.99

SO-239 female type roof mount



Size: 3/4" hole
Coax: 17' RG-58A/U
Conn: PL-259

PO-MM $35.99

SO-239 female type magnetic mount

Size: 3-1/2" x 3" Rectangle
Coax: 17' RG-58A/U
Conn: 58FCP
Pull Strength: 90 lbs.

TMB-34 (chrome) $5.99
TMB-34B (black) $7.99

Trunk mounting bracket for NMO antenna.

Size: 1-5/8" x 1-5/8"
Mount: NMO

Parts and Accessories

W-490 ..... $9.99

Chrome .100 tapered replacement whip for 144 MHz. (49")

W-490B $12.99

Black .100 tapered replacement whip for 144 MHz. (49")

W-2/70B $24.99

Black .100 dia. replacement whip for NMO 2/70B (approx. 31")

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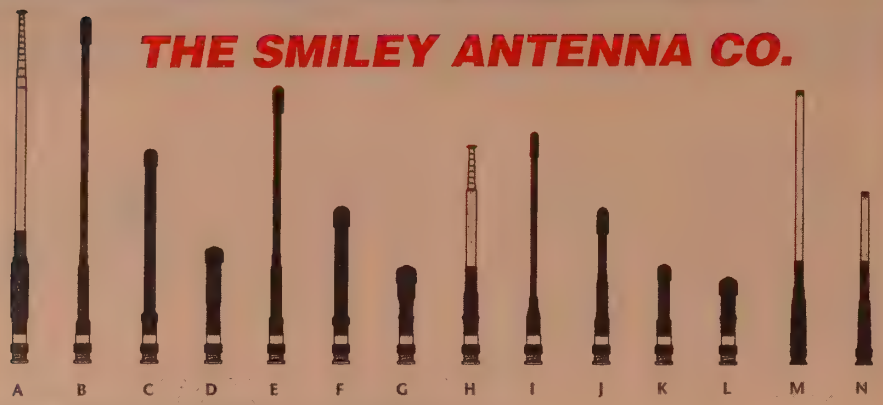
360 944-7551, Fax: 360 944-7556
Email: info@radialllarsen.com
Web: www.radialllarsen.com

THE SMILEY ANTENNA CO.



HAND TUNED ANTENNAS FOR HANDHELD RADIOS

Each Smiley antenna is individually tuned to resonance at band center under normal operating conditions (no ground plane, no radials). They're manufactured from the finest heat-treated copper plated spring steel coils. Cold rubber compound is used for coil insulation with a neoprene heat-shrink coating applied for strength and endurance. All have BNC connectors.

TS Thin Stick 1/4-wave telescoping dual band antenna for 144 and 220MHz bands **$16.99**

SS-II Super Stick II *(A)* 2M, 5/8-wave, flexible base loaded telescoping antenna. 6-9db gain fully extended. Usable fully collapsed, or one section 1/4 wave. 54" extended, 10" collapsed **$19.99**

SS-II/COMBO Super Stick II Combo Same as above, but includes a 2m stubby duck **$26.99**

5/8 SLD-2 5/8 **Slim Duck** *(B)* 2m, 5/8-wave, 7db gain, flexible base loaded ant. 12" long..... **$17.99**

5/8 SLD-2 COMBO 5/8 **Slim Duck Combo** As above, but includes a 2m stubby duck **$24.99**

RD-2 Regular Duck *(C)* For 2m. Tuned ducks show a 3db gain over other rubber ducks because they are *impedance matched* for HTs **$14.99**

RDS-2 Stubby Duck *(D)* Tuned, for 2m .. **$14.99**

SS-III Super Stick III 220MHz 5/8-wave, flexible base loaded telescoping antenna. 6-9db gain extended; usable collapsed, or a one-section 1/4-wave. 36" extended, 8¾" collapsed **$19.99**

SS-III/COMBO Super Stick III/Combo As above, but incl. a 220MHz stubby duck..... **$26.99**

5/8 SLD-220 5/8 **Slim Duck** *(E)* 220MHz, 7db gain, flexible base loaded 9" antenna **$17.99**

5/8 SLD-220 COM 5/8 **Slim Duck Combo** Same as above, but includes a 220MHz stubby duck antenna **$24.99**

RD-220 Reg. Duck *(F)* 220MHz, tuned.... **$14.99**

RDS-220 Stubby Duck *(G)* As above **$14.99**

SS-IV Super Stick IV *(H)* 440MHz 5/8-wave, flexible telescoping ant. 6-9db gain extended; usable collapsed. 18" extended, 5¾" collapsed **$19.99**

SS-IV/COMBO Super Stick IV Combo Same as above, plus has 440MHz stubby duck..... **$26.99**

SL-440 Slimline *(I)* 440MHz, ¼-wv. flex . **$12.99**

5/8 SLD-440 5/8 **Slim Duck** *(J)* 440MHz, 7db gain, flexible base loaded 5" antenna **$17.99**

5/8 SLD-440 COM 5/8 **Slim Duck Combo** As above, plus has a 440MHz stubby..... **$24.99**

RDS-440 Stubby *(K)* 440MHz, tuned..... **$14.99**

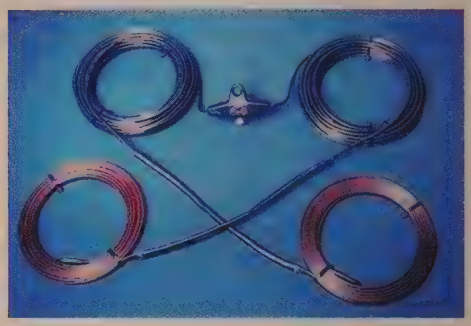
RDMD-440 Mini Duck *(L)* As above..... **$14.99**

FLX 1/2 WAV-2M Flex-Coil *(M)* 2M, 1/2-wave, 7-9dB gain, flexible base, 35" fully extended **$25.99**

270A *(N)* Telescoping 2m/440 gain antenna. 1/4-wave (2m) 5/8-wave (440MHz). The 270A is also available with SMA..... **$19.99**

TAQ 1/4-wave whip antenna, specify for 2M, 220 or 440MHz .....each **$10.99**

www.iacantennas.com



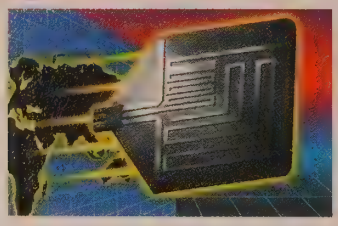
Double Bazooka Half Wave Antennas are constructed with a flat-top of 50Ω coax and a section of 300Ω transmission line at each end. The shield is split in the middle, but the center conductor and insulation are left intact. The feedline connects to the split shield which becomes the radiating element. This results in quiet, broadband operation with 98% efficiency and a 50Ω balanced feedpoint without a balun. Mount it horizontally or as an inverted V. Handles legal RF power limit. Has weatherproof center insulator, feeds directly with 50Ω coax with PL-259 connector. The 80m version will operate efficiently on 80-10m with antenna tuner.

160M Bazooka 1.8MHz (160M), 248'.. **$214.99**
80M Bazooka 3.5MHz (75-80M), 121' . **$150.99**
40M Bazooka 7MHz (40M), 64'..... **$126.99**
20M Bazooka 14MHz (20M), 32' ... Special Order

Half Sloper Antennas An extremely broad-banded antenna that can operate efficiently across an entire Ham band with less than a 2:1 VSWR. It's a quarter wave length long, constructed from 50Ω coax in combination with a 300Ω transmission line end section. (looks like one-half of the Double Bazooka pictured). Mounts from a tower or vertical metal support for optimum results. Feeds directly with 50Ω coax with PL-259. Ground return is accomplished through the metal support. Handles full legal power.

160M-S 160M, 127 ft **$140.99**
80M-S 75-80M, 67 ft., operates 80-10m with antenna tuner **$115.99**
40M-S 40M, 33 ft..... Closeout **$79.99**

ANTENNAS AMERICA, INC.



Freedom Antenna A concealed, disguised antenna system that mounts on-glass inside the vehicle. It uses an advanced, copper-etched serpentine array contour design. At .013" thick, its ultra-thin interior-mount design virtually disappears into your windshield. At only 3½" square, its "stealth-like" finish blends totally into the glare band. Simply locate the recommended area on your windshield interior. Then, apply like a decal, route the cable and connect it to your radio. No holes to drill, no magnet scratches, no suction cup smudges and no clips. It's limited to 75W of power.

HVA-146 140-155 MHz **$69.99**
HVA-460 435-480 MHz **$69.99**

ANTENNA SUPERMARKET

The Eavesdropper Shortwave Broadcast Receiving Antenna A 42 ft. long center-fed dipole with 8 automatic bandswitching trap circuits which electrically separate the antenna segments – just tune your receiver to the desired band. The Eavesdropper covers the 11, 13, 16, 19, 21, 25, 31, 41, 49, 60, 75 and 90 meter bands. Includes **The Zap-Trapper®** gas-tube lightning arrestor for receiver protection and 50 ft. of 450-pound test support rope. Completely assembled, ready to use. Two models:

EAVES TWIN with 100' of 72Ω twin lead **$89.99**
EAVES SO239 with weatherproofed SO-239 coaxial center connector, coax not included **$89.99**

We accept I.M.P.A.C.® Government Credit Cards

DIAMOND ANTENNA

D-130J Super Discone Copied by many, equaled by none. Professional quality. Ultra-Wideband Omnidirectional – receives amateur, air traffic control, police, fire and other utilities from 25-1300MHz. Can transmit 80-1300MHz (50MHz with adjustment). Rustfree stainless steel employed in major component parts. Ideal antenna for scanners and receivers including Icom R100/7000/8500 & AOR AR5000/8200. Use standard RG213 or RG8X coax. Mast mounting U-bolts included. 67"h, 2.2 lbs... **$89.99**

Service Questions?
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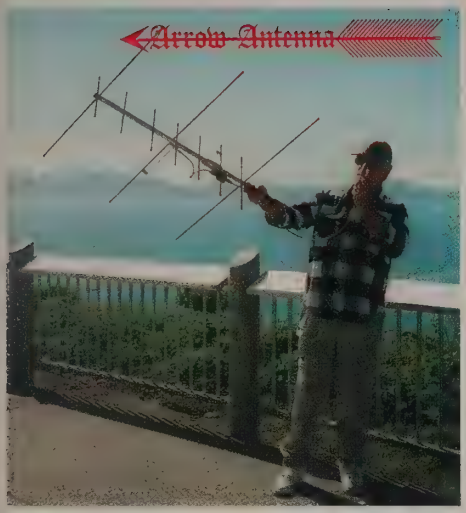
Browse Our Store On-Line at www.aesham.com



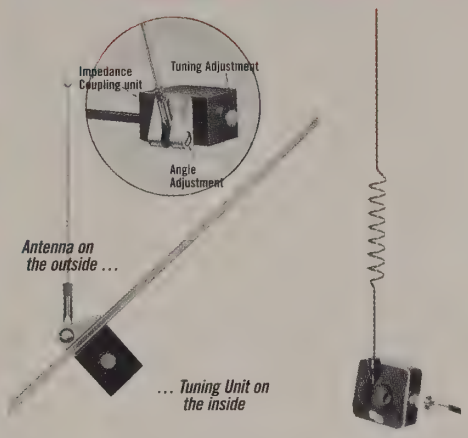
146/437-10 Pictured is Gerald Schmitt, KK5YY, working VE6EGN on the AO27 amateur radio satellite using a Yaesu VX-1R with 500mW output and connected to an Arrow 146/437-10 antenna. KK5YY worked from many Alaskan grid squares during his 1998 trip, including a contact from the Arctic Circle.

The Arrow is designed specifically to allow portable satellite operation using just an HT. This means engineering it to provide maximum gain and efficiency in the smallest practical size and weight.

The boom construction is 3/4" square aluminum stock, 37½" long with a foam grip on the back end for comfort. The three VHF and seven UHF Gamma matched elements with separate BNC connectors are aluminum arrow shafts which are strong and lightweight, and plastic tipped for safety **$73.99**

146/437-10BP Split boom model..... **$79.99**

ANTENNA SPECIALISTS



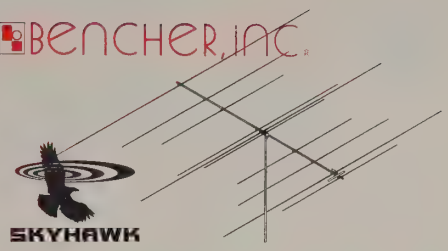
"ON-GLASS™" MOBILE ANTENNAS

No holes to cut! The small Tuning Unit attaches to the glass inside the vehicle, and couples capacitively through-the-glass to the Radiating Element mounted on the outside. Installs with easily removable adhesive. Includes adhesive, 15 ft. of coaxial cable with PL-259 connector • 100W • 144-174MHz (APR-151.3), 138-150MHz (AP-143) • 6MHz, tunable bandwidth • Less than 1.5:1 VSWR • 50Ω nominal impedance • Electrical 1/2-wave radiator • Shunt fed, DC ground coupling unit • 33" (APR-151.3) 23" (AP-143) stainless steel, black DURA-COAT ™ finish whip • 15' RG-58/U cable with PL-259

APR-151.3 *(left)* 2m, On-glass, 33" high ... **$69.99**

AP-143 *(right)* 2m cell "look-alike," 23" **$69.99**

BENCHER, INC.



TRIBAND YAGI

Put a design breakthrough on your tower.

SKYHAWK 3X10 3 band, 10 element, 20/15/10M, 100% rust free ..... **Drop Ship $999.99**

VERTICALS

Simply the best, yet competitively priced.

butternut ANTENNAS

HF-2V 80/40 vertical, 32' **$249.99**

HF-6VX 6-band vertical, 26' **$329.99**

HF-9VX 9-band vertical, 26' **$389.99**

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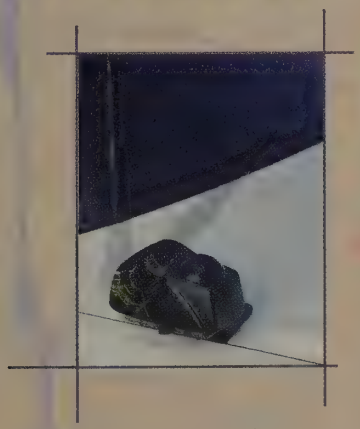
Maldol

A Tradition of Consistent Quality

HAND CRAFTED ANTENNAS

From Professional Engineers



MK-30H Motorized Mount

The ultimate in convenience.

12VDC Heavy Duty Motor with Remote Switch Attaches easily to trunk lids or the rear door of Vans/SUVs. 360° adjustable. Slip-clutch protects the motor gears from stripping. Max Antenna Height: 62 inches. Max Antenna Weight: 16oz. Accepts standard SO-239 cable assembly (FVS-50) for mounting PL-259 type antennas. (NMO antennas require SO-239 cable assembly and Comet AD-25M adapter)

PRM-T Heavy Duty Lip Mount

Attaches to a trunk or rear door of Vans/SUVs. Holds antennas up to 85 inches securely. Completely adjustable, rubber gasket protects vehicle paint.

FVS-50 Deluxe Coax Cable Assembly

Attach the FVS-50 to the PRM-T heavy duty adjustable mobile mount. 16 feet 9 inches total length with 18 inches of RG-188 type coax for easy entry into the vehicle without causing wind noise, water leaks or coax damage. PL-259 barrel is detachable for easy installation, weather cap included.

NEW FOR THE YAESU FT-817!

Complete Telescoping HF Antenna w/BNC Conns & Removable Whip

AH-28 (10 meter) AH-14 (20 meter)
Length: 48 inches Max Pwr: 10W

Optional loading coils and whip.
AH-C7 (40 meter) AH-C14 (20 meter)
AH-C21 (15 meter) AH-C28 (10 meter)
AH-R Optional stainless steel telescoping whip

MOBILE ANTENNAS

EX-104B/EX-104BNMO

2M/70cm Dualband Antenna
Gain: 0/2.15dBi Length: 15 inches
Max Power: 50W Conn: PL-259 or NMO

EX-107RB/EX-107RBNMO

2M/70cm Dualband Antenna
Gain: 2.6/4.9dBi Length: 29 inches
Max Power: 80W Conn: PL-259 or NMO
Ground Independent

SHG-140B/SHG-140BNMO

2M Mobile Antenna
Gain: 4.1dBi Center Loaded 5/8 wave
Length: 56 inches Max Power: 200W
Conn: PL-259 or NMO
Ground Independent

SHG-1500B/SHG-1500BNMO

2M/70cm Mobile Antenna
Gain: 4.5/7.5dBi Length: 59 inches
Max Power: 200W Conn: PL-259 or NMO
Ground Independent

NCG COMPANY

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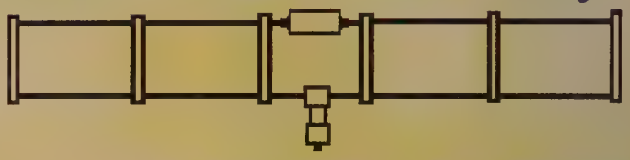
Cover the entire HF band with one antenna - *The Easy Wa*

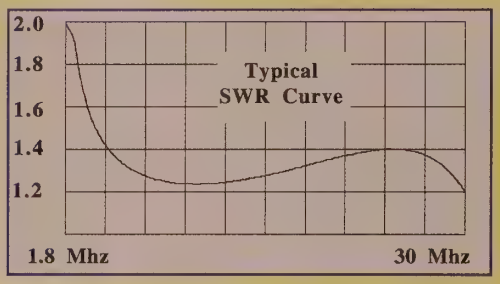
True continuous freq coverage from 1.8-30 Mhz

These antennas are so unique that they were even patented! They can offer operation over the entire HF band *without need for an antenna tuner*. Work *any* frequency you want without going through a lot of knob twirling and measurements to get a good SWR match - *just set your frequency and go!*



- ✓ *True continuous freq coverage*
- ✓ *1.8 - 30 Mhz in only 90 Feet*
- ✓ *SWR less than 2:1 from 1.8 - 30 Mh*
- ✓ *No antenna tuner required*
- ✓ *Very low noise for superior receiv*
- 2 KW PEP SSB/CW ICAS
- #14 stranded copperweld or stainless wire
- 50 Ohm input with SO-239
- Comes completely assembled, only 7 Lbs
- Install as flat top, inverted Vee, or sloper

Tens of thousands of these antennas have been supplied to the US military, NATO, UN, Red Cross, and other similar agencies. They can be found on every continent in the world.



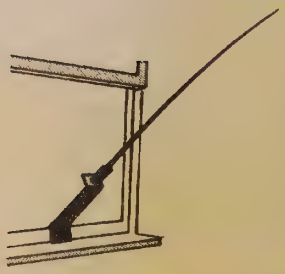
AC-5-30 5.0 to 30 Mhz, 65 ft., Copperweld wire ..... **ACS-5-30** same, but stainless steel

BWD-1.8-30 1.8 to 30 Mhz, 90 ft., Copperweld wire ..... **BWDS-1.8-30** same, but stainless stee

NO YARD? DEED RESTRICTED? NO PROBLEM!

WINDOW MOUNT / PORTABLE ANTENNA

2 - 40 METERS • 300 WATTS

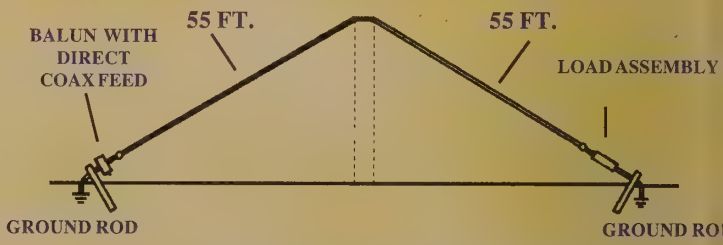


AP-10A Designed especially for people that cannot erect a permanent antenna. Easy tuning to *any frequency continuous* from 10-40M. Will also operate 2 and 6M. Mounts to a window, table, balcony, etc. Base loaded unit includes telescopic whip, window mount bracket, single coil with flylead/clip, insulated counterpoise wire, 10 Ft of coax with PL-259, hardware. Whip collapses to 23" for easy transport.

Quality Communications Products Since 1932
All Products Proudly Made in the USA

Broadband End-Fed Vee - 1.8 - 30 Mh

All of the same unique broadband characteristics of our folded dip antennas, except in a grounded configuration. Good for metal r tops, and low to ground installations.

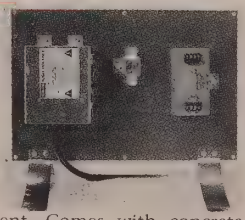


AC-1.8-30 ---------- Copperweld Wire

ACS-1.8-30 ---------- Stainless Steel Wire

PolyPhaser® CORPORATION

GROUNDING PANEL



CU-SPGP A .062" thick copper plate mounted on a melamine covered board. For mounting protectors and establishing a single grounding point for all station equipment. Comes with concrete anchors, mounting screws, two rolls of 10' x 1.5" copper grounding strap and 2 copper sandwich bars. 18"w x 12"h, 16" on-center mount **$69.99**

LOW INDUCTANCE COPPER STRAP

An advantage over wire for grounding. Lower inductance and cannot be fused open by lightning. Usable above or in-ground, #26 AWG thickness. Available in 1.5, 3 or 6 inches wide and 25, 50, 75 or 100 ft. rolls ..... **See Price Guide**

ROTOR CONTROL PROTECTOR

IS-RCT *(left)* 8-wire protection for rotor and other nearby equip. Water tight w/mount. stud... **$54.99**

IN-LINE PHONE LINE PROTECTOR

IS-SPTL *(right)* Multi-stage protection for telephone trunk lines. Handles ring voltages up to 105V, surges up to 36kA **$57.99**

POWER LINE EXTENSION PROTECTOR

In-line, multi-stage protectors provide multi-strike line protection, filtering and proper grounding. 2 outlets, master on/off switch, and circuit breaker. All aluminum grounded enclosure, 4.75" wide.

IS-PLDO-120-15A 15' cord, 120V/15A. **$172.99**

IS-PLDO-120-20A 6' cord, 120V/20A... **$215.99**

BROADBAND COAXIAL PROTECTORS

Low loss • Multi-strike capability with low strike throughput energy • Aluminum enclosure • VSWR: ≤1.1 over freq. range • Bulkhead or flange mount

Flange Mount

IS-50UX-C0 1.5–400MHz. Power: HF 2KW; VHF 375W; UHF 125W **$61.99**

IS-50UX-C1 50–700MHz. Power: VHF 375W; UHF 125W **$61.99**

IS-50NX-C2 125–1000MHz. VHF 375W; UHF (low) 125W; 800MHz–1GHz 50W. Type-N **$61.99**

Bulkhead Mount

IS-B50LU-C0 1.5–400MHz. Power: HF 2000W; VHF 375W; UHF 125W **$64.99**

IS-B50LU-C1 50–700MHz. Power: VHF 375W; UHF 125W **$64.99**

IS-B50LN-C2 125–1000MHz. VHF 375W; UHF (low) 125W; 800MHz–1GHz 50W. Type-N.. **$64.99**

IS-IE50LN-C1 Deluxe 50–700MHz. Power: VHF 375W; UHF 125W. Type-N **$117.99**

IS-IE50LU-C0 Deluxe 1.5–400MHz. Power: HF 2KW; VHF 375W; UHF 125W..... **$129.99**

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TV-2900 Weatherproof Transformer 82 channel, matching transformer for indoor or outdoor use. Adapts 75Ω coaxial cable with F-connector to terminals of a 300Ω TV antenna, TV set or coupler. Includes F-connector and boot..... **$2.99**

RG-6 75Ω TV Coaxial Cable with cellular poly dielectric, #20 copperweld center conductor, 100% aluminum foil shield and 40% aluminum braid shield provides low-loss, good conductivity, flexibility and tensile strength. Weather-proof F-connectors installed.

CX-0625 25 ft. length..... **$10.99**
CX-0650 50 ft. length..... **15.99**
CX-0675 75 ft. length..... **19.99**
CX-6100 100 ft. length..... **24.99**

CASTLE RIDGE PRODUCTS, INC.

COPPERWELD® Antenna Wire FORGE-WELDED makes the two metals inseparable! Solid bare copper-over-steel wire – the Best for antennas. Very strong, the steel core has very little stretch and long service life. The copper covering provides low RF resistance and is easy to solder. Choice of 12, 14 or 18 gauge.

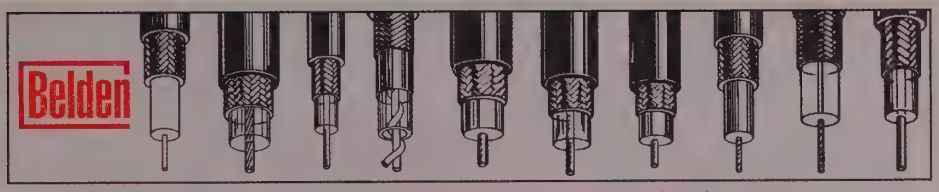
AN-122 100 ft. #12 ..... **$24.99**
AN-123 150 ft. #12..... **34.99**
AN-124 250 ft. #12..... **49.99**
AN-126 500 ft. #12..... **89.99**
AN-128 1000 ft. #12 ..... **149.99**
AN-142 100 ft. #14..... **19.99**
AN-143 150 ft. #14..... **24.99**
AN-144 250 ft. #14..... **34.99**
AN-146 500 ft. #14..... **59.99**
AN-148 1000 ft. #14 ..... **104.99**
AN-181 250 ft. #18..... **14.99**
AN-182 500 ft. #18..... **24.99**

Connecting you to the World™
CABLE XPERTS INC

FLAT GROUNDING BRAID

Flat, flexible, & tinned for easy soldering. 1" size primarily used for grounding tower legs to ground rods or central point in a shack. From the central point, use 1/2" size to all equipment separately for best protection.

2332 1/2", 10 gauge, rated at 53 amps.. per ft. **59¢**
2332 100 100 foot roll of above **$52.99**
235 1", 7 gauge, rated at 85 amps..... per ft. **99¢**
235 100 100 foot roll of above..... **$92.99**



COAXIAL CABLE

See Belden in the Price Guide

Model	Type	Dia. (in.)	Center conductor	Insulation type	Shield coverage	Jacket type	Imp. (Ω)	Vel. factor	Loss/100' 100 MHz
8216	RG-174 Sub-miniature	.11	26 AWG bare copper coat steel	Solid polyethylene	90% tinned copper braid	Black PVC	50Ω	66%	8.4 dB
8219	RG-58A/U	.195	20 AWG solid bare copper	Foam polyethylene	96% tinned copper braid	Black PVC	53.5Ω	73%	4.5 dB
8240	RG-58/U	.195	20 AWG solid bare copper	Solid polyethylene	95% tinned copper braid	Black PVC	51.5Ω	66%	3.8 dB
8259	RG-58A/U	.193	20 AWG stranded tinned copper	Solid polyethylene	95% tinned copper braid	Black PVC	50Ω	66%	5.4 dB
8262	RG-58C/U non-contaminating	.195	20 AWG stranded tinned copper	Solid polyethylene	95% tinned copper braid	Black. non-contaminating PVC	50Ω	66%	5.4 dB
9201	RG-58/U	.193	20 AWG solid bare copper	Solid polyethylene	78% bare copper braid	Black PVC	52Ω	66%	4.2 dB
9258	RG-8X Mini-8	.242	16 AWG stranded bare copper	Foam polyethylene	95% bare copper braid	Black PVC	50	82%	3.1 dB
8214	RG-8/U	.403	11 AWG stranded bare copper	Foam polyethylene	97% bare copper braid	Black PVC	50Ω	78%	1.7 dB
8237	RG-8/U	.405	13 AWG stranded bare copper	Solid polyethylene	97% bare copper braid	Black PVC	52Ω	66%	1.9 dB
8267	RG-213/U non-contaminating	.405	13 AWG stranded bare copper	Solid polyethylene	97% bare copper braid	Black. non-containating PCV	50Ω	66%	2.1 dB
9913	Low loss semi-flexible RG-8/U	.405	10 AWG solid bare copper	Semi-solid polyethylene	100% bonded foil plus 90% tinned copper. braid	Black PVC	50Ω	84%	1.3 dB
9913F7	Low loss flexible RG-8/U	.405	10 AWG stranded bare copper	Gas-injected foam polyethylene	100% bonded foil plus 90% tinned copper braid	Black Belflex®	50Ω	84	1.5 dB
9251	RG-8A/U non-contaminating	.405	13 AWG stranded bare copper	Solid polyethylene	97% bare copper braid	Black non-contaminating PVC	52Ω	66%	1.9dB
8241	RG-59/U	.242	23 AWG solid bare copper	Solid polyethylene	95% bare copper braid	Black polyethylene	75Ω	66%	3.4 dB
8213	RG-11/U	.405	AWG 14 solid bare copper	Gas-injected foam polyethylene	97% bare copper braid	Black polyethylene	75Ω	84%	1.3 dB
8238	RG-11/U	.405	18 AWG stranded tinned copper.	Semi-foam polyethylene	97% bare copper braid	Black PVC	75Ω	66%	2.0 dB

PREASSEMBLED COAXIAL HOOK-UP CABLES

9349 3 ft. of RG-58A/U low-loss foam with PL-259s installed..... **$16.99**
9352 50ft. of RG-58A/U low-loss foam with PL-259s installed..... **$28.99**
9354 50 ft. of RG-8/U low-loss foam with PL-259s installed..... **$52.99**
9355 75 ft. of RG-8/U low-loss foam with PL-259s installed..... **$74.99**
9356 100 ft. of RG-8/U low-loss foam with PL-259s installed..... **$89.99**

See Belden in the Price Guide

ROTOR CABLE

8448 Standard duty, 8 wire For runs up to 100 ft. Consists of (6) #22 and (2) #18 AWG tinned copper conductors. PVC insulation and PVC jacket.

9405 Heavy duty, 8 wire. For runs over 100 ft. Consists of (6) #18 and (2) #16 AWG tinned copper conductors. PVC insulation and PVC jacket.

8484 Standard duty, 4 wire Consists of (4) #20 AWG tinned copper conductors. PVC insulation and PVC jacket.

ANTENNA & GROUND WIRE

8000 #14 AWG (7x22) stranded bare copper-covered steel antenna wire.
8018 #8 AWG (solid) soft annealed aluminum ground wire – multiples of 50 ft.

AIM ROTARY COAX CABLE STRIPPERS

For quick, clean preparation of coaxial cable without damage. Insert coax, turn clockwise 4 or 5 times.

24-7735P for RG-58, RG-59, RG-62..... **$21.99**
24-7736P for RG-6, RG-59, 8281 ..... **21.99**
24-7739P for RG-8, RG-11, RG-213 ..... **28.99**
HT-332 *(right)* for RG-6/58/59/62.... Closeout **9.99**

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Black Dacron® Polyester Antenna Rope Constructed of strong, double braid Dacron® Black for UV protection. Resistant to mildew & abrasion. Ties and cuts easily, sealing effectively with a hot knife.

100' 100 ft., 3/32" **$6.99**
100' 3/16 100 ft., 3/16" **14.99**
100' 5/16 100 ft., 5/16" **19.99**
350' 350 ft., 3/16" **39.99**

Flex Your Muscles

Use Our Strength

Ready-Made Coaxial Cable Assemblies

RG8/U-Foam PE
.9db @ 30MHz
95% braid coverage
Light weight
Ultra-violet resistant jacket
With PL259 each end

9913 Flexible
2.8db @ 450MHz
Low loss
Double-shielded
Non-contaminating & direct burial jacket
With PL259 each end or "N" male ea. end

RG8X/Mini Foam
2.0db @ 30MHz
95% braid coverage
Low power
Small diameter
Ultra-violet resistant jacket
With PL259 each end

RG213/U Mil-Spec
1.2db @ 30MHz
High power capabilities
Non-contaminating & direct burial jacket
With PL259 each end

All Soldered Construction – Silver, Teflon®, Gold Tip Connectors

For optimum performance from your communications equipment. These precision USA made and tested assemblies will provide years of great service. Guaranteed to perform to specifications. For excellent cabling results, you can depend on CABLE X-PERTS, INC.

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See Price Guide for Cable X-perts pricing.

MFJ

MFJ ENTERPRISES, INC.

Permanent Mobile Hard Mounts A top quality SO-239 or NMO-type antenna mount with 14 ft. of RG-58A/U coaxial cable and PL-259 connector attached. Easily snakes around a vehicle to the best operating position. Perfect for MFJ *RuffRider™* or other brands of mobile VHF/UHF antennas .

341S for SO-239 base connector..... **$19.99**
341M for NMO base connector..... **19.99**

CENTAUR ELECTRONICS

High Performance Baluns • State-of-the Art • 0.5 to 50MHz performance with advanced toroid transformer • 3KW SSB rated • Extended performance in hostile environments • Stainless steel hardware • Heavy-duty body materials • Military grade internal components • Dimensions: 3"dia. x 7"

B11W10-50 1:1, dipole..... **$54.99**
B11Y10–50 1:1, yagi..... **54.99**
B41Y10-50 4:1, yagi..... **69.99**
B41LW10–50 4:1, ladderline to coax..... **69.99**

UNADILLA

W2VS ANTENNA TRAPS

Add these traps to your dipole for multiband operation.

KW-80CW 80m CW.....pair **$48.99**
KW-30 30 meters.....pair **42.99**
KW-12 12 meters.....pair **41.99**
KW-10 10 meters.....pair **41.99**

W2AU FERRITE BALUNS

These baluns replaces center insulator and provide a smooth transition from unbalanced coaxial transmission lines to balanced antennas; dipoles, quads and yagis. Produces proper current distribution resulting in reduced feedline radiation for maximum power transfer, gain and reduced TVI/BCI. DC grounded for lighting protection, center eye hook for support. Usable from 1.8-40MHz, 2KW PEP, So-239 connector..

W2AU 1:1 1.1, 1.8-40MHz ferrite.....**$24.99**
W2AU 4:1 1.1, 1.8-40MHz ferrite..... **$24.99**
W2AU BEAM 1.1, Beam balun..... **$24.99**

W2DU NON-TRANSFORMER CHOKE BALUNS

High efficiency, *transformerless* 1:1 baluns. The HF model is the only one available that works on 160 meters! They all handle a VSWR up to 5:1 at the legal power limit, allowing use with antenna tuners. The VHF model eliminates the usual rod and tube hardware balun assembly normally used at those frequencies.

W2DU-HF 1:1, 1.8-30MHz choke balun....**$26.99**,
W2DU-VHF 1:1, 30-250MHz choke balun**$26.99**,
W2DU BEAM 1:1, 40-10m choke balun....**$26.99**

Van Gorden Engineering

BALUNS & INSULATORS

Hi-Q 1:1 or **Hi-Q 4:1** Baluns For dipoles, yagis, inverted vees and doublets. Provides 1:1 or 4:1 impedance ratio for matching unbalanced coaxial cable to balanced antennas. Covers 3–40MHz with a 1.5KW rating. Reduces feedline radiation for more power into antenna, and reduced TVI/BCI problems. Built-in DC ground reduces static noise and provides some lightning protecton. Convenient SO-239 connector and center support eye hook.Weatherproof .. ea. **$14.99**

ANTENNA CENTE Hi-Q Antenna Center Insulator Insulator only, no balun. Replaces egg-type center insulator. Small, rugged, lightweight, weatherproof, SO-239 connector, center supporting eye hook..... **$6.99**

ANTENNA END IN End insulators.... pair **$4.99**
DOG BONE Antenna insulators..... each **99¢**

LADDER LINE

450 OHM 100 18 ga. 100' insulated..... **$14.99**
450 OHM 14 100 14 ga. 100' insulated.... **29.99**
450 OHM 1,000 18 ga. 1000' insulated.. **109.99**
450 OHM 14 1000 14 ga. 1000' insul.... **229.99**

WHITE NYLON ROPE

NR-100 100' roll, antenna guy rope **$4.99**
NR-1,000 1000' roll, antenna guy rope **44.99**

N CONNECTOR

N CONNECTOR Male connector for Belden 9913 and 8214 coax **$4.99**

PREASSEMBLED COAXIAL HOOK-UPS

8X-3ST 3' RG-8X w/silver-teflon PL-259s.... **$8.99**
8X-6ST 6' RG-8X w/silver-teflon PL-259s.... **10.99**
8X-12ST 12' RG-8X, silver-teflon PL-259s.. **11.99**
8X-25ST 25' RG-8X, silver-teflon PL-259s.. **15.99**
8X-50ST 50' RG-8X, silver-teflon PL-259s.. **24.99**
8X-75ST 75' RG-8X, silver-teflon PL-259s.. **31.99**
8X-100ST 100' RG-8X, silver-tef. PL-259s.. **37.99**
213-25ST 25' RG-213, silver-tef. PL-259s ... **25.99**
213-50ST 50' RG-213, silver-tef. PL-259s ... **38.99**
213-75ST 75' RG-213, silver-tef. PL-259s ... **54.99**
213-100ST 100' RG-213, sil.-tef. PL-259 .... **72.99**

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MFJ ENTERPRISES, INC.

ANTENNA TUNERS

922 VHF/UHF Dual Band Antenna Tuner Great for HTs, mobile rigs or amps up to 150W. Using the included tool, adjust your antenna system for a low SWR on VHF from 136~175MHz and UHF from 420~460MHz. Meter reads both SWR and power in two ranges: 60W or 150W. Only 4 x 2 x 1.25"- carry it in your car, on camping trips, etc **$79.99**

945E Mobile Tuner Covers 1.8~30 MHz, and rated at 300W PEP. Matches coaxial cable only. Extends mobile antenna bandwidth and eliminates having to stop and adjust the whip length when making frequency changes. Lighted Cross-Needle SWR bridge & Power meter with 50/300 and 5/30W ranges. 8"w x 2"h x 6"d **$99.99**

941E Versa Tuner II Covers 1.8~30 MHz and rated at 300W PEP. *Matches everything!* – coaxial fed dipoles, vees, whips, verticals, beams, random wires and balanced lines, has a built-in 4:1 balun. Lighted Cross-Needle SWR/Power meter with 300/50W and 30/5W ranges. Convenient 8-position antenna selector for 2 coax lines, random wire or balanced line or an external dummy load. 10.625"w x 2.875"h x 7"d..... **$109.99**

934 Antenna Tuner/Artificial Ground Makes a random wire an effective antenna. Combines the best features of the MFJ's 941E and 931 into one unit. A full-featured 1.8 to 30MHz, 300W antenna tuner with Cross-Needle meter and *Ground Matching* knob that lets you switch in inductance to bring an attached radom length wire to a low impedance current point, forming an artificial ground. 10.625"w x 3.5"h x 7"d **$169.99**

948 Has all the features of the 941E but without the dummy load. Has larger lighted peak reading Cross-Needle SWR/Power meter **$119.99**

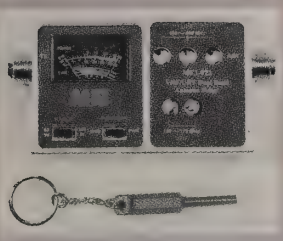
949E Deluxe Versa Tuner II The same power, tuning and switching capability as the 941E. Has a larger, lighted peak or average reading Cross-Needle SWR/Wattmeter. *PreTune™* feature allows off-the-air tune-up into a built-in 50 ohm dummy load. 10.625"w x 2.875"h x 7"d. **$139.99**

969 Deluxe Versa Tuner II Covers 6 thru 160 meters and rated at 300W. Features a roller inductor coil with a spinner knob and 3-digit turns counter. Lighted peak or average reading Cross-Needle SWR/Wattmeter with 30/300W ranges. Tunes coaxial cable, random wire or balanced feedline, has a built-in 4:1 balun. QRM-Free *Pre-Tune™* feature allows off-the-air tune-up into a built-in 50 ohm 300W dummy load. Convenient 8-position antenna selector switch. 10.5"w x 3.875"h x 9.5"d. **$189.99**

962D Versa Tuner III Covers 1.8~30 MHz and rated at 1.5KW PEP. Matches coaxial fed antennas, random wire or balanced line, has a built-in 4:1 balun. Lighted peak or average Cross-Needle SWR/Wattmeter with 200/2000W ranges. Six position selector for two coax lines (direct or thru tuner), random and balanced lines. 10.5"w x 3.875"h x 15"d **$249.99**

986 Differential-T Tuner™ Covers 1.8~30MHz , rated at 3KW PEP. Uses a broadband T-network with roller inductor and differential capacitor. Tunes most antennas using only two knobs. Lighted peak or average reading cross-needle SWR/wattmeter with 200/50W and 2000/500W ranges. Inductor spinner knob, 3-digit turns counter, 6-position antenna selector, ext. dummy load switch, 4:1 balun. 10.75"w x 4.5"h x 15"d..... **$299.99**

989C Versa Tuner V Covers 1.8~30 MHz and rated at 3KW PEP. Super duty components. Matches nearly every type of antenna. Roller inductor with spinner knob and three-digit turns counter. Lighted peak or average reading cross needle SWR/wattmeter with 200/2000W ranges. Built-in 50Ω 300W dummy load, 3KW 4:1 balun and six-position antenna selector switch. 10.75"w x 4.5"h x 15"d..... **$319.99**



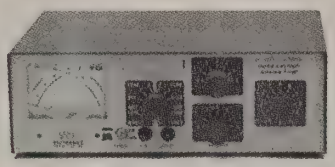
922

VECTRONICS

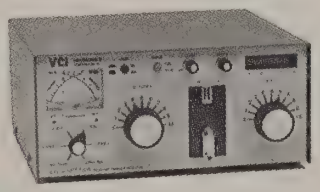
ANTENNA TUNERS

VC-300M Mobile Tuner Compact, lightweight and economical for base or mobile use. Tunes verticals, dipoles, inverted Vs, beams and mobile whips fed by coaxial cable. Covers 1.8 - 30MHz at 300W continuous power. The dual-movement cross-needle meter simultaneously monitors RF power output and SWR. Size: 7.25"w x 3.5"h x 8.75"d, 2.5 lbs..... **$99.99**

VC-300DLP Antenna Tuner A quality, economical tuner. Covers 1.8-30MHz at 300W continuous power capability from 3.5-30MHz and 150W on 1.8 MHz. Built-in dummy load, dual-movement cross-needle peak or average reading meter. Compatible with most antennas – coax-fed, balanced or single wire. Built-in 4:1 balun and 6-position antenna switch. 10.25"w x 9.5"d x 3.5"h, 3.5 lbs... **$149.99**



VC-300D Antenna Tuner Same functions and specifications as the VC-300DLP above, but has the additional capability to show a peak power indication by using an instantaneous responding digital bargraph meter display. A level and delay control has been added to calibrate the display to the meter, and to vary the delay response..... **$179.99**

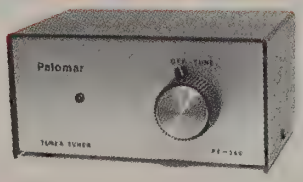


HFT-1500 Antenna Tuner Rated for 1500W from 1.8~30MHz; 1000W (2KW PEP) on 160 and 10M. Features a cranked continuous roller inductor with a numerical turns counter and vernier tuning on the antenna and input capacitors. The dual-movement cross-needle meter shows average forward and reverse power and SWR while a 21-segment bargraph indicates the peak power. A true RF directional coupler sensor is used for the wattmeter circuitry. Includes a built-in 4:1 balun for balanced antenna systems and six-position antenna selector switch. 5.5"h x 12.5"w x 12"d, 10 lbs **$399.99**

AMERITRON

ATR-30 True Legal Limit™ Antenna Tuner Covers 1.8~30MHz, including all MARS and WARC bands. Designed for sustained RF output of over 1500W CW and 3000W SSB, also 160m. Uses High-Q, high-current, edge-wound arc-free roller inductor with super heavy-duty 500pf capacitor in T-match network. Matches nearly any type of antenna using either coax or balanced feedlines. Cross-needle peak-reading SWR/wattmeter with 3000/300W ranges measures peak or average forward/reflected power plus VSWR, illum. Includes three-core choke balun, six-position antenna switch and 6:1 vernier reduction drives, turns counter. Optional external 12 VDC or internal 9V battery required **$549.99**

Palomar Engineers



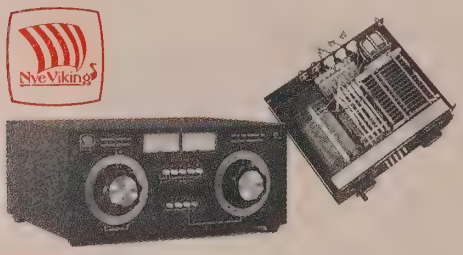
PT-340 Tuner-Tuner Eliminate QRM, overheated final tubes and devices by adjusting your station antenna tuner without transmitting. Installs permanently between rig and antenna tuner. Just turn it on, and listen to the noise output in your receiver, then adjust your station tuner controls for a dip in the noise (a null). Covers 1.7 to 30MHz. Uses 9V battery. Dimensions: 6"w x 5"h x 3"d..... **$99.99**

we have a **SECURE** web site at www.aesham.com

ICOM

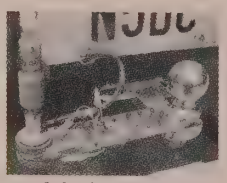
AH-2B Antenna Element Provides 7–50MHz mobile operation when used with the AH-4 antenna tuner. Includes hardware to mount to a tow bar, 8.2 ft. antenna **$299.99**

AH-4 Automatic Antenna Tuner *Fully automatic* – covers all amateur bands from 3.5MHz through 54MHz with a 23 ft. or longer wire antenna, or 7–54 MHz with optional AH-2B antenna element. Compact yet durable, it measures only 6.7"w x 2.7"h x 9"d for easy installation in a variety of locations – outdoors, on a back porch or in your vehicle. Weather-resistant construction, using rubber gasket seals, enables operation in all conditions. Handles 120W PEP, requires only 5–15W for tuning. Designed for use with ICOM HF transceivers. Just push the transceiver [TUNER] switch and the AH-4 automatically adjusts to the minimum SWR in less than 2.5 seconds. Up to 45 memory channels store settings to provide 1-second re-tuning. Supplied with mounting kit, 16 ft. control and coaxial cables, PL-259s. Requires 13.8 VDC. **$269.99**



MB-V-A Heavy-Duty Antenna Tuner 1.8 to 30 MHz continuous tuning. Silver plated variable inductor with 25:1 vernier dial. 7kV variable capacitor and 15kV switch selected fixed output capacitors. Tunes most antennas 1/4-wave length or longer from 40–2000Ω (some may not tune at 1.8 MHz). Automatic SWR metering without calibration. Separate automatically switched 300W/3KW RMS wattmeter. Quality 2½" backlit meters continuously display SWR and power. Silver plated 5-position pushbutton antenna switch selects from four antennas: two coaxial, single wire and balanced line, and bypass. Trifilar-wound 3KW toroid balun provides balanced output from 200 to 1000Ω, and unbalanced output down to 20Ω. Requires 9V battery for metering and external 12VDC for meter lights. 14.75"w x 6.75"h x 12.25"d, 18 lbs **$879.99**

DC SALES



TENNA HITCH A heat treated, high strength aluminum bracket with insulated 3/8" x 24 mounting stud. Installs under the ball of any Class-I or II hitch. Handles the largest mobile antennas, and does not interfere with trailer towing capability. No holes to drill. All hardware is supplied **$38.99**

LDG ELECTRONICS

Z-11-ASM QRP Auto Antenna Tuner Perfect for the Yaesu FT-817 and other QRP. Designed with regard to reducing size and power consumption. A high efficiency, microprocessor controlled, switched "L" network designed to work with dipoles, verticals, vees, beams or other coax-fed antennas. • 1.8–30 MHz coverage • 0.1 to 30W continuous • Tunes 6 to 800Ω loads • Tuning time: 0.1–3 seconds (1.5 average) • Requires 11-15 VDC @ 10–190mA (75mA average) • 5" x 6.5" x 1.3", 15 oz **$169.99**

AT-11MP-ASM Automatic Antenna Tuner Microprocessor control merged with a proven switched "L"-network design. Automatically analyzes SWR and quickly adjusts discrete components to achieve, in most cases, an SWR of 1.5:1 or less. For dipoles, verticals, vees, beams and other coax-fed antennas. Optional external 4:1 balun for tuning of random length, long wire, and other systems. Dual cross-needle meter simultaneously shows forward/reflected power and SWR. Built-in interface for operation with Alinco and Icom radios (cable required). • 1.8–30MHz coverage • Power range: 5 to 150W • Tunes 6 to 800Ω loads • Tuning time: 0.1–5 seconds (3.0 average) • Requires 11-15 VDC @ 15–500 mA (250mA average) • 9.5" x 8.25" x 2.5" **$219.99**

DAIWA Industry co. ltd.

CS-201 2-Position Coaxial Switch *(right)* A high quality coaxial switch with excellent high frequency RF characteristics due to cavity and heavy diecast metal construction. Frequency range up to 600MHz with less than 0.12 VSWR, less than 0.2dB insertion loss and 60dB isolation between terminals. Rated at 2.5 KW PEP or 1KW CW. Auto grounding of unused terminals, SO-239 connectors **$26.99**

CS-401 4-Position Coaxial Switch *(left)* Same features as CS-201, but rated to 800MHz **$149.99**

WA1FFL

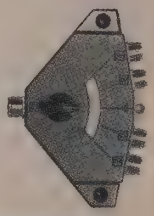
Ladder-Loc® Center Insulator & Support Provides a convenient means of attaching 450Ω ladderline to various dipole antennas. This sturdy support minimizes feedline flexing at the antenna feedpoint and ensures a long lasting, trouble-free installation. A top attachment point is provided for attaching a center support rope. UV stabilized for long life **$12.99**

MFJ ENTERPRISES, INC.

COAXIAL SWITCHES

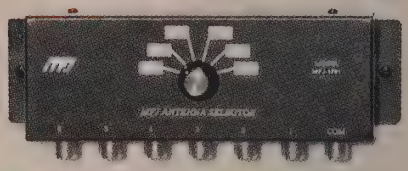
1702C Antenna Switch Two positions plus center ground, 50Ω. Rated to 500MHz with <0.2dB loss, 2.5KW PEP or 1 KW CW. >60dB isolation @ 300MHz or >50 dB @ 450MHz. Unused terminal automatically grounds for lightning protection **$24.99**

1702CN Lowest loss on UHF. Uses Type N connectors which are good up to 1.1 GHz **$34.99**

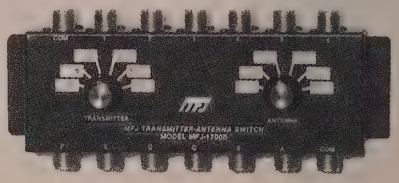


1704 Antenna Switch Four positions, plus center ground. 50Ω, rated to 500MHz with <0.2dB loss. Handles 2.5KW PEP, 1KW CW, >50dB isolation @ 500MHz. Includes a replaceable lightning protection device **$64.99**

1704N with Type N's **$74.99**



1701 Antenna Switch Six positions, for 50-75Ω systems. Rated for 2KW PEP or 1KW CW from 1.8–30MHz. Unused positions are grounded for lightning protection. 10"w x 3"h x 1.5"d **$49.99**



1700B Antenna and Transceiver Switch Select up to six antennas and six rigs in any combination – tuner, SWR meter, linear, etc. Can be left in line to operate with any combination 50 or 75Ω. Handles 2KW PEP or 1KW CW from 1.8 to 30MHz. Unused positions are automatically grounded for lightning protection. 10"w x 3"h x 1.5"d **$79.99**

270 Lightning Surge Protector Safeguard your ham gear from damage due to dangerous static charges and lightning induced surges. Replaceable ultra-fast gas discharge tube safely shunts up to 5000 amps of peak impulse current to an independent ground. Rated to 400W PEP, usable up to 1000MHz **$29.99**

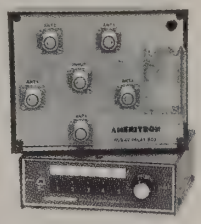
ANTENNA MOUNT

310 HT Antenna Window Mount Clip Your HT rubber duck antenna radiates poorly inside your car due to the shielding effect of the roof, doors, etc. Detach the duck from your HT and install on this handy BNC window mount clip. It holds your antenna securely on the outside of your car's window where it can radiate freely. It's quick and easy to install and remove. Comes with 10 ft. feet of flexible mini-coaxial cable **$14.99**

AMERITRON

REMOTE CONTROLLED SWITCHES

RCS-4 Select up to 4 different HF antennas while using just one coaxial feed line. The weatherproof switch box locates out on the tower, mast or other remote location. The control box locates at your operating position and switches antennas with a control voltage routed directly through the coaxial cable without a separate control wire. Rated 1.8–30MHz, 2KW..... **$129.99**



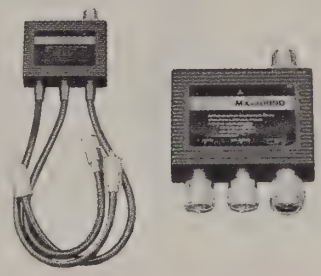
RCS-8V Independently or simultaneously select up to 5 different antennas using just one coaxial feedline and 8-wire control cable. Internal wiring allows user to ground or float unused terminals as required. Rated at 5KW below 30MHz, and 1KW up to 150MHz **$139.99**

DUPLEXERS

Type	SO239 PL259/PL259	SO239 PL259/Nmale	SO239 SO239/SO239	SO239 PL259/PL259	SO239 PL259/Nmale	Nfemale PL259/Nmale	PL259 SO239/SO239
Leads	No	No	No	Yes	Yes	No	Yes
2m/440	Comet CF4160K Diamond MX72D MFJ 916	Comet CF4160I	Comet CF4160J Valor D270	Comet CF416A Comet CF530 Diamond MX72H	Diamond MX72N Yaesu AD3	Comet CF416C Comet CF416W	
2m/220	Diamond MX214D			Comet CF142			
HF/6 to 440				Comet CF360A			Comet CF360B
HF to 6/2m				Comet CF706A Diamond MX62M			

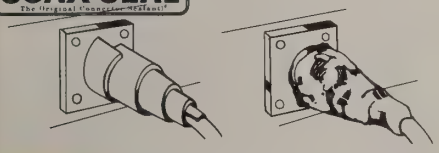
TRIPLEXERS

Type	Leads	HF/6/2/440/1200	HF/6/2/440	2/220/440
Nfemale PL259/PL259/Nmale	No	Comet CFX4310C		
SO239 PL259/PL259/PL259	Yes	Diamond MX2000	Comet CFX514	Comet CFX324A Diamond MX324
SO239 PL259/PL259/PL259	No		Comet CFX5140	Comet CFX324B Diamond MX324D
Nfemale PL259/PL259/Nmale	Yes	Diamond MX3000		
SO239 PL259/PL259/Nmale	Yes		Comet CFX514N	
Nfemale PL259/Nmale/Nmale	Yes	Diamond MX3000N		
SO239 SO239/SO239/SO239	No		Comet CFX514J	



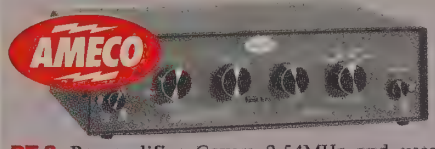
For duplexer and triplexer prices, see the Price Guide under each respective manufacturer.

COAX-SEAL



UNV 104 Hand Moldable Plastic for Antenna Component Protection The quick and effective way to seal and protect all types of coaxial fittings, baluns, antenna parts and connectors. Simply wrap it on like regular tape, then mold it to any shape. It adheres tightly to metal, vinyl and polyvinyl coax outer jackets. Stays flexible and sealed at any temperature for years to resist moisture penetration and deterioration. Its permanent flexibility makes it possible to remove and re-install fittings, then re-seal just by re-forming the same material. Non toxic and non-contaminating roll, 1/2"w x 60"..... **$3.99**

AMECO



PT-3 Preamplifier Covers 2-54MHz and useable with either a receiver or transceiver. A tunable low noise dual-gate FET circuit provides >20dB gain, low N.F. and improved spurious and image rejection. An RF sensed switch with variable delay automatically bypasses to antenna on transmit. Second receiver or antenna capability. 12V DC, or use P-12T AC adapter ($9.99). 2.5"h x 8.75"w x 6.5"d **$124.99**

TPA Tunable Preamplifier /Active Antenna Use as a preamplifier to improve receiver gain, or as an indoor active antenna. Covers 0.22 –30MHz in 5 bands. A dual-gate FET device provides an excellent N.F. and >20 dB gain. As a preamplifier, the input matches most antennas; long wire, 300Ω and random lengths. When no external antenna is available, the preamplifier's built-in 30 in. collapsible whip gives great results. Uses 9V battery or PT-9T AC adapter ($9.99). 1.5"h x 8"w x 6.5"d..... **$76.99**

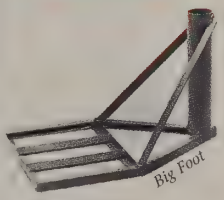
PENETROX™

PENETROX® A Recommended for use on aluminum-to-aluminum and aluminum-to-copper connectors, on bare conductors, and bus bars. Good for all voltages. Assures a high conductivity joint by sealing out air and moisture to prevent corrosion and reformation of oxide film. Apply to mating pieces of antenna components, tubing, etc. during assembly to provide a non-corrosive, low resistance and air tight seal. Makes later disassembly a breeze ..... (4oz bottle) **$12.99**

Cross Devices

STUF Dielectric Water-proof Connector Filler Seals out moisture. High purity macroscopic foam that dielectrically simulates the coaxial cable core. Fill coax connectors and tighten. The filler material hydraulically channels into all connector voids and points of moisture entry. Non-hardening, easy to remove. No silicones, or other additives to harm coax cable material..... (tube) **$4.99**

NEW WAVE Antenna



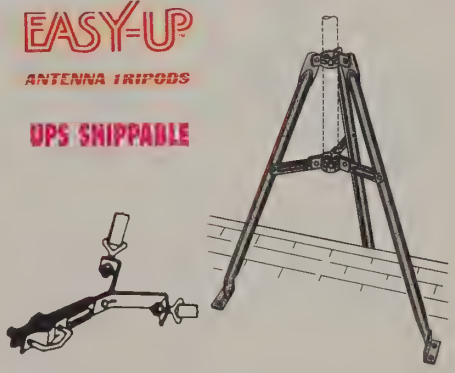
PORTAPLE COLLAPSIBLE MASTS

For Portable or Temporary antenna installations 7-section, telescoping masts manufactured from 6061-T6 polished aircraft aluminum with a 2" to 1.25" taper. Light-weight, easily raised by one person at ground level in seconds. Each section joint has a 4" overlap and snaps into place. Rotates at any section along its length, or securely locks into place. Snap-on antenna and park-on steel mount options.

ADVENTURER 47" to 12 ft, 4.5 lbs..... **$109.99**
TRAVELER 59" to 19 ft, 6.5 lbs..... **$124.99**
ROVER 71" to 26 ft, 8.5 lbs..... **$149.99**
EXPEDITIONER 83" to 33 ft, 10.5 lbs.. **$174.99**
EXPLORER 95" to 40 ft, 12.5 lbs..... **$199.99**
BIG FOOT Park-on steel mount. 8.5 lbs **$119.99**
SNAP ON MOUNT Antenna Mount Attach antennas to portaples without tools. Adds 12" **$19.99**

EASY-UP ANTENNA TRIPODS

UPS SHIPPABLE



The use of a self-supporting antenna mount makes a neat and attractive installation without guy wires. EZ-Ups are Heavy-Duty and Self-supporting – made out of 1¼" tubular steel with triple corrsion protection inside and out. Double embossed collars with six locking screws hold masts up to 1¾". Fast, one-man installation, the legs extend to any rafter spacing. Shipped completely assembled and includes a pitch pad kit and lag screws.

EZ 48-3ABX *(right)* 3 ft. high, 8.5 lbs..... **$24.99**
EZ 48-5ABX *(right)* 5 ft. high, 12 lbs..... **$34.99**
EZ 5-16 5' 16 ga. steel mast (Pick-up only). **$7.99**
EZ 29-24 Heavy-duty Double-strap Chimney Mount *(left)* Mount includes two "Y" type mounts and 24' of galvanized strap..... **$12.99**

hy-gain ROTATORS

. . . the first choice of hams around the world!

$529.99

The HAM-IV

is the most popular rotator in the world! It is designed for medium communications arrays of up to 15 square feet wind load area. New low temperature grease permits normal operation down to -30 degrees F. New alloy ring gear gives extra strength up to 100,000 PSI for maximum readability. New indicator potentiometer, new ferrite beads reduce RF susceptibility, new cinch plug connector plus 8-pin plug at control box. Dual 98 ball bearing race for load bearing strength and electric locking steel wedge brake prevents wind induced antenna movement. North or South center of rotation meter scale, low voltage control, 2.063" max. mast size.

Ham IV Specifications

Wind Load cap.(inside tower)	15 square feet
Wind Load (w/mast adapter)	**7.5 square feet**
Turning Power (in lbs.)	800
Brake Power (in lbs.)	**5000**
Brake Construction	Electric Wedge
Ball Bearing Assembly	**Dual race/96 bearings**
Mounting Hardware	Clamp plate/steel U-bolts
Control Cable Conductors	**8** (Belden 8448 or 9405)
Shipping Weight (lbs.)	24
Effective Moment (in tower)	**2800 ft/lbs.**

T2X $619.99
T2XD $979.99

The TAILTWISTER SERIES II

is designed for medium communications antenna arrays of up to 20 square feet wind load area. Available with DCU-1 Pathfinder digital control box (T2XD) or standard analog control box (T2X). Low temperature grease, alloy ring gear, indicator potentiometer, ferrite beads on potentiometer wires, new weatherproof AMP connectors plus 8-pin plug at control box, triple bearing race with 138 ball bearings for large load bearing strength, electric locking steel wedge brake, north or south center of rotation scale on meter, low voltage control, max mast of 2.063".

TAILTWISTER Specifications

Wind Load cap.(inside tower)	20 square feet
Wind Load (w/ mast adapter)	**10 square feet**
Turning Power (in lbs.)	1000
Brake Power (in lbs.)	**9000**
Brake Construction	Electric Wedge
Ball Bearing Assembly	**Triple race/138 bearings**
Mounting Hardware	Clamp plate/steel U-bolts
Control Cable Conductors	**8** (Belden 8448 or 9405)
Shipping Weight (lbs.)	28
Effective Moment (in tower)	**3400 ft/lbs.**

$899.99

THE HAM-V

is the rotor for the new millennium. Designed for medium communications antenna arrays of up to 15 square feet wind load area. Includes the innovative DCU-1 Pathfinder control unit. A new alloy ring gear with 100,000 PSI tensile strength and new indicator potentiometer have been added for improved reliability. No more terminal strips! New Cinch® connector plus 8-pin plug at control box. Ferrite beads reduce RF susceptibility. New powder coated finish. Maximum mast size of 2.063" inches.

HAM-V Specifications

Wind Load cap.(inside tower)	15 square feet
Wind Load (w/mast adapter)	**7.5 square feet**
Turning Power (in lbs.)	800
Brake Power (in lbs.)	**5000**
Brake Construction	Electric Wedge
Ball Bearing Assembly	**Dual race/96 bearings**
Mounting Hardware	Clamp plate/steel U-bolts
Control Cable Conductors	**8** (Belden 8448 or 9405)
Shipping Weight (lbs.)	24
Effective Moment (in tower)	**2800 foot/lbs.**

$1229.99

The HDR-300A

is for King-sized antenna arrays up to 25 sq.ft. wind load area. Control cable connector, new hardened stainless steel output shaft, new North or South centered calibration, new ferrite beads on potentiometer wires to reduce RF susceptibility, new longer output shaft keyway for added reliability. Heavy-duty self-centering steel mast clamp and hardware. Digital heading display accurate to one-degree. Machined steel output gear.

HDR-300A Specifications

Wind Load capacity	25 square feet
Wind Load (w/mast adapter)	**N/A**
Turning Power (inch lbs.)	5000
Brake Power (inch lbs.)	**7500**
Brake Construction	Solenoid operated locking
Bearing Assembly	**Bronze sleeve w/rollers**
Mounting Hardware	Stainless steel bolts
Control Cable Conductors	**7** (Belden 8448 or 9405)
Shipping Weight (lbs.)	55
Effective Moment (in tower)	**5000 ft/lbs.**

$269.99

The AR-40

is for large FM-TV and compact communication antenna arrays up to 3.0 square feet wind load area. Dual 12 ball bearing race is exclusive in its class. Automatic position sensor never needs resetting. Fully automatic control - just dial and touch for any desired location. Solid state, low voltage control, safe and silent operation. Maximum mast size of 2.063". Includes MSLD light duty lower mast support.

AR-40 Specifications

Wind Load cap.(inside tower)	3.0 square feet
Wind Load (w/mast adapter)	**1.5 square feet**
Turning Power (inch lbs.)	350
Brake Power (inch lbs.)	**450**
Brake Construction	Disc Brake
Ball Bearing Assembly	**Dual race/12 bearings**
Mounting Hardware	Plated clamps/steel bolts
Control Cable Conductors	**5** (Belden 8448 or 9405)
Shipping Weight (lbs.)	14
Effective Moment (in tower)	**300 ft/lbs.**

$369.99

The CD-45II

handles 8.5 sq. feet mounted inside a tower, or 5 sq. ft. with mast adapter. Low temperature grease good to -30 F degrees. Bell rotator design gives total weather protection, dual 58 ball bearing race gives proven support. Die-cast ring gear, stamped steel gear drive, heavy duty, trouble free gear train, North center scale, lighted directional indicator, 8-pin plug/socket on control unit, snap-action control switches, low voltage control, safe operation, takes masts up to 2.063". Includes MSLD light duty lower mast support

CD-45II Specifications

Wind Load cap.(inside tower)	8.5 square feet
Wind Load (w/mast adapter)	**5.0 square feet**
Turning Power (inch lbs.)	600
Brake Power (inch lbs.)	**800**
Brake Construction	Disc Brake
Ball Bearing Assembly	**Dual race/48 bearings**
Mounting Hardware	plate clamps/steel U-bolts
Control Cable Conductors	**8** (Belden 8448 or 9405)
Shipping Weight (lbs.)	22
Effective Moment (in tower)	**1200 ft/lbs.**

$619.99

The DCU-1 PATHFINDER

Digital Rotator Control unit compatible with T2X & HAM IV

• Automatic Operation of brake and rotor • Computer control with RS232 pass through • Compatible with many logging and contest programs • 6 presets for your favorite beam headings • one-degree heading • Automatic 8-second brake delay • 360 degree choice for center of rotation • Shipping weight: 8 lbs.

Rotator Accessories

MSHD Heavy duty lower mast support for Ham IV/V, T2X..... **$81.99**

MSLD Lower mat support for CD-45II, AR-40..... **$29.99**

TSP-1 Tower spacer plate..... **$29.99**

http://www.hy-gain.com

YAESU

K-Factor: Multiply turning radius times weight; add K-Factors for each antenna in multi-antenna installations. The results of the calculation should not exceed the K-Factor rating of the rotator.

ROTATORS

Precision designed for a wide variety of antenna installations • Strong, weatherproof, die-cast aluminum enclosures • Permanently lubricated for years of smooth, quiet operation • 450° Rotation • Selectable north or south center • Quiet, gear reduction braking • 117/220 VAC • Fits most USA-made tower shelves. Recommended Belden cables listed below.

G-2800DXA *(left)* The top-of-the line rotator for extra heavy-duty applications. Total rotation range 450°, with presets • 34 sq. ft. wind load • K-factor of 6870 ft. lbs. • 1808 ft lbs. of stationary torque • Rotation torque: 57.8-181 ft. lbs., rotation speed and torque vary with the speed control setting • Maximum vertical load of 661 lbs. • ±1/2° backlash • 1¾-2½" mast size • 48-150 second 360° rotation • Optional GS-232A computer interface • Requires 6-wire cable • 8"dia. x 13¾"h • 13.2 lbs **$1139.99**

G-1000DXA *(middle)* High-performance for medium and heavy-duty applications. Total rotational range 450°, with presets • 23 sq. ft. wind load • K-factor of 2020 ft. lbs. • 433 ft lbs. of stationary torque • Rotation torque: 43-79 ft. lbs., rotation speed and torque vary with speed setting • Max. vertical load: 440 lbs. • ±2° backlash • 1½-½" mast size • 35-74 sec. 360° rotation • Opt. GS-232A interface • Requires 6-wire cable • 7.5"dia. x 12.5"h • 7.7 lbs..... **$519.99**

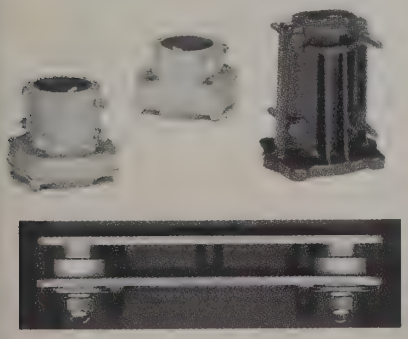
G-800DXA *(right)* High-performance for medium-duty applications. Total rotational range 450°, with presets • 17 sq. ft. wind load • K-factor of 1299 ft. lbs. • 288 ft lbs. of stationary torque • Rotation torque: 43-79 ft. lbs., rotation speed and torque vary with the speed control setting • Maximum vertical load of 440 lbs. • ±2° backlash • 1½-2½" mast size • 35-74sec. 360° rotation • Opt. GS-232A interface • Requires 5-wire cable • 7.5"dia. x 12.5"h • 7.5 lbs.... **$429.99**

G-800SA *(left)* High performance for medium-duty applications. Total rotational range 450°, No presets • 17 sq. ft. wind load • K-factor of 1299 ft. lbs. • 288 ft lbs. of stationary torque • Rotation torque: 43-79 ft. lbs., rotation speed and torque vary with the speed control setting • Max. vertical load of 440 lbs. • ±2° backlash • 1.5-2.5" mast size • 44 second 360° rotation • Quick-disconnect plug • Requires 5-wire cable • 7.5"dia. x 12.5"h • 7.5 lbs..... **$339.99**

G-450A *(middle left)* For HF/VHF light to medium-duty applications, without presets • 10 sq. ft. wind load • K-factor of 722 ft. lbs. • 217 ft lbs. of stationary torque • Rotation torque: 43 ft. lbs. • Maximum vertical load of 220 lbs. • 1.5-2.5" mast size • 53 second 360° rotation • Requires 5-wire cable • 7.5"dia. x 12.5"h • 7 lbs **$259.99**

G-550 *(right)* Elevation rotator, for satellite earth station and other space communication antennas • 12 sq. ft. wind load • K-factor of 578 ft. lbs. • 101 ft lbs. of stationary torque • Rotation torque: 73 ft. lbs. • Maximum vertical load of 440 lbs. • ±3% backlash • 1½-2½" mast size • 67 second 180° elevation • 1¼-1¾" boom diameter • Requires 6-wire cable • 10.5"dia. x 7.5"h • 7.3 lbs **$299.99**

G-5500 *(middle right)* Azimuth-Elevation rotator combination for satellite earth station & other space communication antennas • 11 sq. ft. wind load • 578 ft. lbs. K-factor • 145 ft lbs. stationary torque • Rotation torque: 44 ft. lbs. • Max. vertical load: 440 lbs. • ±4% backlash • 1½-2½" mast • 58 sec. 360° rotation • 67 sec. 180° elevation • Opt. GS-232A interface/C-1000 cable • 1¼-1¾" boom dia. • Requires 2 x 6-wire cable • 12.5"dia. x 7.5"h, 20 lbs **$629.99**



ROTATOR ACCESSORIES

GA-2500 Tower absorb. (G-450A/800) ..... C/O **$79.99**
GA-3000 Tower absorb. (G-1000/G-2800)..... **119.99**
GC-038 Mast clamp (G-450/G-800/G-1000/G-5500) **31.99**
GC-048 Mast clamp (G-2800)..... **47.99**
GS-050 50mm thrust bearing for 1.25" to 2" masts.. **31.99**
GS-065 65mm thrust bearing for 1.5" to 2.5" masts. **47.99**
GS-232A Interface for DXA rotators..... **539.99**
C-1000 Cable to interface the GS-232A and any SDX rotator or G-5500 ..... **29.99**
GS-680U Universal, self-adjust. bearing..... **99.99**
SEP KIT Separation kit for the G-5500..... **23.99**

L.L. GRACE

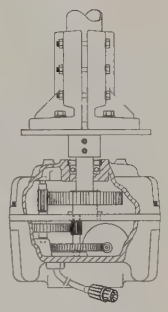
SATELLITE TRACKING WITH A PC

GRA KCT **Kansas City Tracker Package** A hard/software package connecting directly to a rotor controller and IBM XT AT, or clone. Controls antenna array, letting a PC track any satellite or orbital body • Custom serial interfaces • Does not use COMM ports • Runs in "spare time," a PC can run other programs at the same time • Load tables with more than 50 satellite passes using QuikTrak or GrafTrak • Use pop-up to work an antenna rotor (compatible with all DX logging programs) • Morse-code sender section announces rotor position and status • Half-size interface card that plugs into a PC • Interface cable, connector, software, Yaesu/Kenpro 5400/5500/5600 cable and rotor interface option • Compatible with DOS 2.0 or higher ..... Closeout **$229.99**

GRA KCT/T **Kansas City Tracker Package Plus Tuner** The tuner option provides automatic doppler-shift compensation for digital satellite work. Compatible with most rigs and controls a radio thru the radio's serial computer port or the up/down mic-click interface. Perfect for low-orbit digital satellites like the NOAA and Microstat satellites..... **$329.99**

Used & Demo
Equipment lists
Updated regularly on the web.
Check them out and order **On-line**

M²



OR-2800PDC **Heavy-duty Rotator** Powerful and reliable, rotates multiple HF antennas or large VHF or UHF arrays with ease. The control box provides manual features plus heading preset, 10 programmable presets, programmable ramped start/stop, 1/2-degree target accuracy. Includes RS-232 port for computer control • Precision worm-gear drive, not reversible by mast torque • Non-slip, ductile iron mast clamps • Large drive plate for masts up to 3" • Heat-treated steel gear train, hardened driveshaft • Prop-pitch style torque plate • Fits inside most popular towers and mates to standard towers and rotator plates • Motor-mounted digital pulse switch for accurate, closed loop control and heading display • 35 sq. ft. wind area • 1800 lbs. vertical load • 1¾-3¼ O.D. mast size • 55-270 second rotation speed • 0.1°/0.5° travel resolution • 110/220V AC, 50/60Hz input • 28-42V DC motor Requires 4-wire rotor cable, it's recommended to use Belden 8448 or 9405 (8-wire) and double up • 15.75"h total, 9.75"h rotor • 42 lbs **$1572.99**

GLEN MARTIN ENGINEERING

Never Climb A Tower Again!

With Martin Towers & the Hazer

Roof-Top Towers

- High Quality Anodized Aluminum/Satin Finish
- Lightweight & Extra Heavy Duty. No Guying!
- Stainless Steel Hardware. Will Not Rust!
- Ideal for support of Ham Antennas, AMSAT, Scanners, Weather Monitors, etc.!
- Free 48 State Shipping!

Model	Height	D' [illegible]	Base Width	Wind Load [2]	Max Ant. Load	Lbs.
RT-424	4.5	34.75"	24"	6 sq. ft.	100 lbs.	18
RT-832	8.0	43.75"	32"	8 sq. ft.	120 lbs.	30
RT-936	9.0	43.75"	36"	18 sq. ft.	130 lbs.	54
RT-1832	17.5	37.62"	32"	12 sq. ft.	110 lbs.	62
TB-25	Preminum thrust bearing, max mast 2.5"					3
MC-10	Mast clamps, 2 required, non-rotating.					2
LR-8400	Lightning Rod Kit (order ground cable separately)					12
RA-6048	48" Long side arm, 7" high by 1.31" dia.					13

1 Distance from top mounting surface to rotator plate. 2 Wind load rating at 87 miles per hour.

You may have a mechanical ground, but do you have an electric ground? Lightning rods provide protection against damaging lightning which can greatly effect antennas, rotators and other components. Order GME's complete kit which provides everything needed to ensure a proper ground (Lightning rod, mast clamp, terminal lug, ground rod, and ground rod clamps included). **ORDER# LR-8400**

TB-25

MC-10

Assorted Masts					
Model#	Description	Dia.	Wall	Length	Lbs.
M-1040	10' Heavy Duty Galv. Steel Mast	2"	.145	120"	31
MA-1040	10' Med. Duty Aluminum Mast	1.92"	.145	120"	11
M-1049	9' Heavy Duty Galv. Steel Mast	2"	.145	106"	30
MA-1049	9' Medium Duty Aluminum Mast	1.92"	.145	106"	9
MA-5050	5' Light Duty Aluminum Mast	1.31"	.145	60"	5
MA-1050	5' Medium Duty Aluminum Mast	1.92"	.145	60"	7

Hazer Tram System

For Rohn 20/25G Towers

- **The Hazer Eliminates Tower Climbing**
  Brings antennas and rotors down to the ground for safe and convenient maintenance and installation!
- **Quick & Easy Access to Antennas in Minutes**
  Lower your antennas completely to the ground in a matter of minutes. The Hazer comes with everything you need to get started!

How does it work?

The Hazer works like a simple elevator designed to provide horizontal mobility to your antennas, measuring instruments, rotators, etc. The Hazer is designed to wrap around the tower. A pulley at the top of the tower, along with a winch and wire rope is used to raise and lower the antenna. It's as simple as raising a flag up a flag pole. Never climb your tower again. Let the Hazer do the climbing for you!

Each Hazer Kit Includes the following:

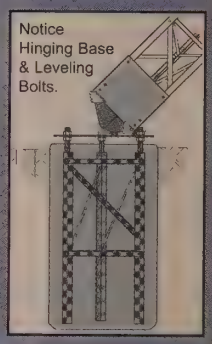
Top and bottom plates for a rotator and thrust bearing, standard winch (W-1101), 100 feet 1/8 winch cable (50' tower), top pulley, and all mounting hardware (stainless steel).

HAZERS for Rohn 20/25G & 45G/55G				
MODEL	Max. Ant. Load	Wind Ability	Material	Lbs.
H-2	175 lbs.	12 Sq. Ft.	Heavy Aluminum	32
H-3	150 lbs.	8 Sq. Ft.	Aluminum	27
H-4	200 lbs.	16 sq. Ft.	Galv. Steel	49
VH8-60	60' Hazer for Rohn 45, 22 sq. feet @ 87 mph			
VH9-70	70' Hazer for Rohn 55, 18 sq. feet @ 87 mph			
HR-2040	Roller Bearing Set for H-2,3,4. Improves Hazer performance.			

Martin Tower Packages

See price list for a complete list of products and prices.

- **Pre-Assembled sections made of strong anodized aluminum**
- **Convenient / Affordable tower packages- everything you need!**
- **No Climbing- includes the world famous Hazer™ Tram System!**
- **All-bolted construction- no welds to break, stainless hardware**
- **Safe, Easy "Walk-Up" Tower Installation- No gin poles!**
- **Lifetime investment- no rust, chipping or freeze breaks**
- **Quality Engineering & Competitive Pricing!**



MARTIN TOWER PACKAGES COMPLETE WITH: 10' sections, footing assembly, hinge base for easy walk-up installation, Hazer (w/cable, winch, etc.), Kevlar Cable guy kit, turnbuckles, earthscrew anchors, grounding kit, stainless steel hardware, and **FREE 48 state motor freight shipping!***

Complete Martin Tower & Hazer Packages					
Model#	Description	Width	80 MPH Winds	87 MPH Winds	Price
M-1330A	30' Hazer Tower Package	13"	16.8	14	$1609.99
M-1340A	40' Hazer Tower Package	13"	15.6	13	$1829.99
M-1350A	50' Hazer Tower Package	13"	14.4	12	$2069.99
M-1840A	40' Hazer Tower Package	18"	20.4	17	$2149.99
M-1850A	50' Hazer Tower Package	18"	19.2	16	$2409.99
M-1860A	60' Voyager Tower Package	18"	19.2	16	$3356.99
M-1870A	70' Voyager Tower Package	18"	18	15	$3659.99

Martin Tower Specifications		
Model #	M-13 Towers	M-18 Towers
Weight	33 lbs.	35 lbs.
Length	10 feet (7'6" & 8'9" available also)	
Tower Width	12-3/4" Equal Triange	17-3/4" Equal Triangle
Material	6061-T6 Anodized Aluminum	
Hardware	18-8 Stainless Steel, 1/4-20 nylon insert lock nuts	
Tower Brace Dia.	1/2" OD x .062 wall	5/8" OD x .062 wall
Cubic Yds. Concrete	1 1/4 Yards	2 1/2 Yards
Footing Width	15.5"	20.75"
Footing Height	36 1/2"	44 1/2"

*Free 48-State shipping to commercial addresses. An additional $75 fee is required for residential delivery.

Free Shipping!

Request product information online at www.glenmartin.com

Check out our full line of accessories including: **Tower Motor Drives 5 ft. to 20 ft. Antenna Masts • 20 ft. Chromolly Masts • Thrust Bearings • Mast Raising Fixtures • Rotating bases • Coax support arms • Limit Switch Packages**

MA SERIES CRANK-UP TUBULAR TOWERS

Will handle 10 sq. ft. antennas at 50 MPH winds.

MODEL NO.	HEIGHT MAX.	HEIGHT MIN.	NUMBER SECTIONS	WT #	SECTION OD Top	SECTION OD Bot.	BASE SIZE	AES PRICE
MA-40	40 ft.	21' 6"	2	242	3" sq.	4½"	12"x 12"x 12"	**$ 899.99**
MA-550	55 ft.	22' 1"	3	435	3" sq.	6"	18"x 18"x 18"'	**1499.99**
MA-550MDP*	55 ft.	22' 1 "	3	620	3" sq.	6"	3'x 3'x 5'	**2932.99**
MA-770	70 ft.	22' 10"	4	645	3" sq.	8"	3'x 3'x 6'	**2529.99**
MA-770MDP*	70 ft.	22' 10"	4	880	3" sq.	8"	3'x 3'x 5½'	**3999.99**
MA-850	85 ft.	23' 6"	5	943	3" sq.	10"	4'x 4'x 6'	**3909.99**
MA-850MDP*	85 ft.	23' 6"	5	1128	3" sq.	10"	4'x 4'x 6'	**5391.99**

*Standard bases and eave mounts included with all towers (except MA-770, 770-MDP and 850 MDP)
• MDP models complete with heavy-duty motor drive with positive pull down.

FREE STANDING CRANK-UP TOWERS

Will handle 18 sq. ft. antennas at 50 MPH winds.

MODEL NO.	HEIGHT MAX.	HEIGHT MIN.	NUMBER SECTIONS	WT #	SECTION OD Top	SECTION OD Bot.	BASE SIZE	AES PRICE
TX-438	38 ft.	21' 6"	2	355	12½"	15"	3'x 3'x 5'	**$1142.99**
TX-455	55 ft.	21' 6"	3	670	12½"	18"	3'x 3'x 6'	**1699.99**
TX-472	72 ft.	22' 8"	4	1040	12½"	21⅝"	4'x 4'x 7'	**2832.99**
TX-472MDP*	72 ft.	22' 8"	4	1210	12½"	21⅝"	4'x 4'x 7'	**4549.99**
TX-489MDPL*	89 ft.	23' 4"	5	1800	12½"	25⅝"	4'x 4'x 8⅙'	**7390.99**

*TX-472MDP includes heavy duty motor drive with positive pull down. *TX-489MDPL comes with heavy duty motor drive with dual level wind and positive pull down. MDPL models include fully operational limit switch packages.

FREE STANDING HEAVY-DUTY CRANK-UP TOWERS

Will handle 30 sq. ft. antennas at 50 MPH winds.

MODEL NO.	HEIGHT MAX.	HEIGHT MIN.	NUMBER SECTIONS	WT #	SECTION OD Top	SECTION OD Bot.	BASE SIZE	AES PRICE
HDX-538	38 ft	21'6"	2	600	15"	18"	3'x 3'x 6'	**$1477.99**
HDX-555	55 ft	22'	3	870	15"	21⅝"	4'x 4'x 6'	**2569.99**
HDX-572MDPL*	72 ft.	22'8'	4	1600	15"	25⅝"	4'x 4'x 8⅙'	**6775.99**
HDX-589MDPL*	89 ft.	23'8"	5	2440	15"	30⅝"	5'x 5'x 8 ½'	**8869.99**
HDX-689MDPL*	89 ft.	23'8"	5	3450	18"	37⅛"	5'x 5'x 9½'	**17,135.99**
HDX-5106MDPL*	106 ft.	24'8"	6	3700	15"	37⅛"	5'x 5'x 9½'	**18,647.99**

*Includes heavy-duty motor drives with dual level wind and positive pull down. MDPL models include fully operational limit switch packages. *HDX-689MDPL rated 60 sq. ft. of antenna at 50 mph winds. HDX-5106MDPL rated at 35 sq. ft. of antenna at 50 mph winds

FREE STANDING "LOW-PROFILE" COMPACT CRANK-UP TOWERS

The SS will handle 18 sq. ft. and HD, 24 sq. ft. antennas at 50 MPH winds.

MODEL NO.	HEIGHT MAX.	HEIGHT MIN.	NUMBER SECTIONS	WT #	SECTION OD Top	SECTION OD Bot.	BASE SIZE	AES PRICE
TMM-433SS*	33 ft.	11'4"	4	315	10"	18"	3'x 3'x 4'	**$1219.99**
TMM-433HD	33 ft.	11'4"	4	400	12½"	20⅞"	3'x 3'x 5'	**1477.99**
TMM-541SS	41 ft.	12'	5	430	10'	20⅞"	3'x 3'x 4½"	**1599.99**

* Rotators must be top mounted on SS models. Yaesu G800S/SDX will fit in and nest.

*** Any tower purchased with a MDP-750 or MDPL-1000 motor drive MUST be purchased with either the MCL-100 or the RMC-1000.

All towers are drop shipped direct from the factory. Shipment is FOB Visalia, CA via truck. Additional freight charges will apply. Ask for details.

SEE PRICE GUIDE FOR COMPLETE LIST OF ACCESSORIES

WRITE OR CALL FOR A COMPLETE US TOWER CATALOG – FREE!

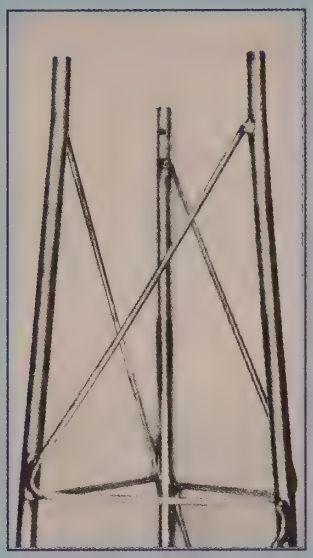
tilt-over base

UNIVERSAL TOWERS

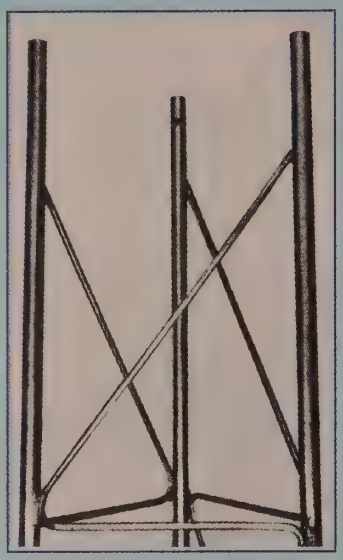
FREESTANDING

LIGHTWEIGHT • RUST FREE • EASY TO ASSEMBLE • RUGGED STRENGTH
for AMATEUR RADIO • TV • FM • INDUSTRIAL • FIRE • POLICE • MARINE

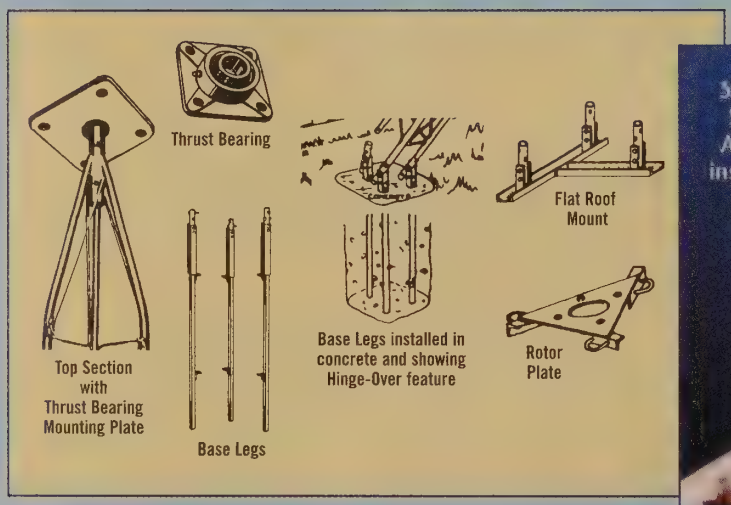
TOP SECTION

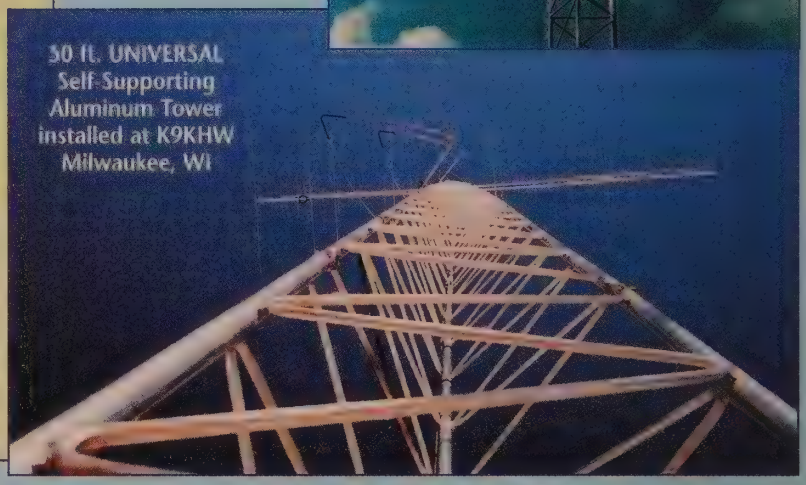


TAPER SECTION



STRAIGHT SECTION





SECTIONS

Universal Aluminum Tower sections are an equilateral triangular welded truss, 10 ft. in length and available 11, 14, 18, 22, 26 or 30 inches wide.

CHOOSING THE PROPER TOWER

(1) Determine the projected surface area of the antenna that you intend to mount. This figure is often in the literature that comes with the antenna. Otherwise: standard TV antennas are about 2 sq. ft. in area; 6/10 meter beams and large TV antennas, 5 sq. ft. ; 20/40 meter beams, 9 sq. ft.; large 20/40 meter beams or multiple antenna arrays, 18 to 26 sq. ft. Also, when using a rotator to add 1 sq. ft. plus 1 sq. ft. for the mast to whatever size antenna you intend to use.

(2) Decide on the tower height that you want. Universal towers are made in 10 foot sections to give you many possible sizes and the ability to add sections later.

(3) Choose the tower model based on height and windload. The model number is merely the wind loading followed by the height. For example, if your antenna calculation resulted in a tower designed for 5 sq. ft. and you wish it to be 50 ft. high, the model you want is a **5-50**.

See the Price Guide for Configurations and Prices.

No Guys!
Self-Supporting at the Rated Load

BEFORE BUYING A TOWER
Consider the advantages of –
ALUMINUM
It's Strong, Lightweight, Rust Free and easy to assemble and erect
UNIVERSAL offers 10' sections or complete towers ranging from 30 to 100' with a choice of wind load ratings and accessories.

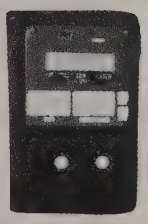
All towers are drop shipped direct from the factory. Shipment is FOB Mt. Clemens, MI via truck, COD for freight charges only. Freight charges will be collected upon delivery by the carrier.

The Pouch

A protective carrying case for H.T.'s made of water-resistant neoprene & nylon. "Bungee type" restraining strap. Belt loop has secure "spear-in" clasp.

Make/Model	Pouch#	Price
ADI		
AT-201/401/600	T-2A	17.99
PR-52/222	PR	14.99
ALINCO		
DJ-C1T/C4T/C5T	AF-738	12.99
S11/S41/S46	P-5	14.99
X2T	510	12.99
195/196T	95T	14.99
180TH/280TH/480T	VX-3T	14.99
V5TDCH/V5TH/G5TH	V-5T	14.99
ICOM		
IC-Q7A	508	12.99
T2H	T-2A	17.99
T7H	P-5	14.99
T8A	510	12.99
T22/44A	P-5	14.99
T81A	510	12.99
IC-V8	VX-3T	14.99
W32A	32-5T	14.99
R3/R10	RC-3	17.99
KENWOOD		
D7A	DTX	17.99
TH-22ATH/42AT/28A	SS	17.99
TH-G71A	G-71	17.99
TH-79A	S-1(2.7w)	17.99
TH-79A	S-2(5.0w)	17.99
VC-H1	S-2	17.99
YAESU - VERTEX		
FT-23/33	23-33	17.99
FT-10/40/50RD	10R	14.99
FT-411MKII/12	2-411	17.99
VX-1R	1R	12.99
VX-5R	5R	14.99
VX-110/150	110-150	17.99
VR-120	5R	14.99
VR-500	508	12.99

ANALYZER POUCH



The original from The Pouch. Clear window over readouts. Back-pocket for accessories. Shoulder strap included. ANALY POUCH $24.99

PackerPOUCH

For Yaesu FT-817. Apertures for mike and headphone plugs on side. Hole big enough for PL259 coax connector and cord for aux. power on the rear. Uses shoulder strap on transceiver. $24.99

POWERPORT

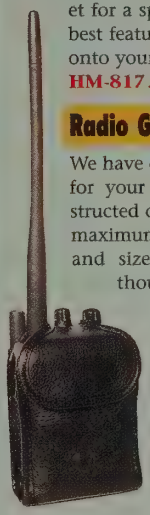
FT-817 Worldpouch

Designed specifically for the **FT-817**, the WorldPouch begs you to bring this extremely versatile radio and all of its accessories out into the field with ease. The rugged nylon fanny pack is designed for comfort and provides easy access to your radio through the zippered radio pouch. The fanny pack has two roomy accessory pockets, and there are multiple nylon loops and tie downs to secure your extra antennas, co-ax and any other necessities of the moment.

The world pouch is well padded, has a built-in antenna pocket and a pocket for a spare 2.3 mAh 12V battery (not included) for extended talk time in the field. One of the best features is that the radio pouch can also be removed from the fanny pack and will clip easily onto your belt for ultralight travel when desired.

HM-817 ..... **$73.99**

Radio Glove



We have designed these pouches specifically for your radios. Their sleek profiles, constructed of **fine glove quality leather**, offer maximum protection without adding bulk and size to your mini-handheld. We've thought of all the little details that you've been wishing for, from the sturdy leather covered belt clip, to a pocket to stash the VX-5's extra antenna. **Find your radio model in the chart below to order the Radio Glove for your handheld.**

All Radio Gloves **$19.99**

Radio Model	Part#
ADI	
AT-201/401HP	HI-61
PR-222/460/52	HI-6
Alinco	
DJ-C1/C4/C5T	HI-D1
DJ-S11T	HI-6
DJ-S41T/S46	HI-6
DJ-V5T	HI-6
DJ-X2T	HI-D1
AOR	
AR-16B	HI-61
Cherokee	
FFR-465	HI-5X
FR-460	HI-D1
Garmin	
e-TREX/Summit	HI-6
Icom	
IC-4008A/M	HI-6
IC-Q7/R2	HI-5X
IC-T81A	HI-6
IC-T8A	HI-6
Kenwood	
UBZ-AL14BK	HI-6
UBZ-LF14BK	HI-5X
UBZ-LH14BK	HI-6

Radio Model	Part#
Motorola	
FR-50/60	HI-6
TA-101	HI-5X
Radio Shack	
21-1813	HI-6
21-1815	HI-D1
21-1820/1821	HI-5X
21-1826	HI-5X
21-1828/1829	HI-5X
HTX-200/400	HI-5X
HTX-245	HI-6
Standard	
C-108A	HI-D1
C-508A	HI-D1
C-510A	HI-6
Yaesu	
FT-11R	HI-5X
FT-50RD/41B	HI-6
FT-10	HI-61
VX-110	HI-61
VX-150	HI-61
VX-1R	HI-D1
VX-5R	HI-51
VXA-100	HI-6

WorldPackII Backpack – NEW & IMPROVED

Now fits all modern mobile radios. Trans-port your rig easily and safely while traveling. Small enough to qualify as carry-on luggage, or fits comfortably on your back. Clever radio elevator to adjust radio height. Constructed of laminated heavy-duty black nylon with 1/4" foam padding with more tie down points to secure your gear. No more fluorescent green lacings – we've updated the look ewith a sharp blue accent. Separate lower compartment for power supply or rechargeable battery with pass through holes for wiring. Comfortable body contoured mesh straps with webbing loops to attach handheld HT or GPS in sky view position. Two antenna pockets to secure multiple elements with tie downs and antenna sleeve to support them. Pocket in lid to secure mic and stores our free gift to you or a wind cover for your microphone. 17"h x 8"w x 3"d.

HMP-II **$67.99**

NEW WorldPack Rechargeable Power Kit

Designed to fit perfectly within the WorldPack. **8AH rechargeable gel cell** power supply with labeled wire harness, female cigarette lighter plug, DC outlet and charger. Choice of two charger rates. Won't overcharge. Sold as an accessory to the WorldPack.

HPP-8A 2-stage, recharges overnight..... **$73.99**

HP-8AF Fast 2-stage charger will recharge from a full discharged state in 2.5 hours **$129.99**

UNI-SOLAR

Solar Cells

Flexible Roll-Up Solar Cells Out of reach of conventional power sources? These solar cells provide your choice of 32W or 5.5W models of 12V DC operating and recharging power. Completely flexible, waterproof and extremely durable. Can be mounted on a flat, curved, or bendable surface.

PPSC-32 32W model will recharge the WorldPack Power Kit in a single afternoon. • 17" X 60" • Rolls up to 10" x 17" for storage..... **$299.99**

PPSC-5 5.5W • Lightweight • 10" x 20" • Preferable for lower use applications..... **$99.99**

VANCO

P-212 2-Outlet Cigarette Plug Adapter Enables two 12V accessories to be used from 1 outlet **$4.99**

P-212B Dual Cigarette Socket Enables two 12 volt accessories to be used from one outlet, comes with replaceable 15 amp fuse **$8.99**

P-12R 2-Contact Cigarette Plug Solder type with twin contact ears, strain relief and grip end.. **$1.99**

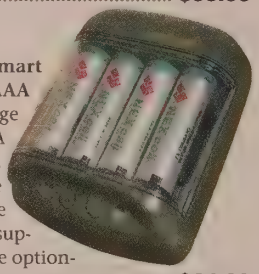
Power Pocket Provides portable power for emergencies, Hamfests, hiking, etc. The 12V @ 2 amp/hour sealed lead-acid rechargeable battery provides talk time, up to 6 times longer than standard packs. It recharges completely in 6 to 8 hours, with the supplied charger; Partial discharges can be recharged to 100% without the usual ni-cad memory effect. Radio conveniently plugs into included female adapter socket. Contained in a compact carrying case with a belt loop and shoulder strap. 3.5"w x 1"d x 6.5"h, 30 oz..... **$66.99**

RECHARGEABLE HIGH CAPACITY NiMH BATTERIES

D-800 1.2V, 8000 mAh "D"..... **$14.99**
C-380 1.2V, 3800 mAh "C"..... **9.99**
AA-155 1.2V, 1550 mAH "AA"..... Closeout **2.99**
AA-160 1.2V, 1600 mAH "AA"..... **3.99**
AAA-T 1.2V, 650 mAH "AAA"..... **2.99**
9V 8.4V, 170 mAH (9V sized)..... **8.99**

MH-FNB-72 An ultra high capacity 1700mAh, 9.6V NiMH battery exclusively for the Yaesu FT-817. Includes a cable that enables recharging the pack in 3 hours using a MAHA MH-C777, MH-C777PLUS, or MH-C888 charger..... **$59.99**

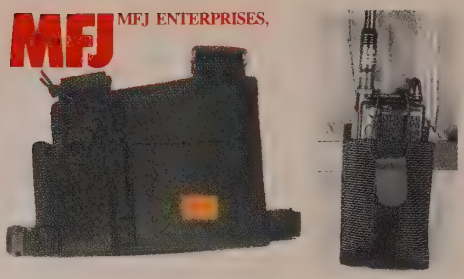
RECHARGERS



MH-C204F Smart Charger for 4 AA/AAA Batteries Rapid charge two or four AA/AAA NiCD/NiMH batteries. Rejuvenate and restore dead batteries. Can be used on a 12V power supply and in a car with the optional car kit..... **$24.99**

MH-C888 Smart Universal Drop-In Charger and Conditioner Convenient rapid charger and conditioner for NiMH/ NiCD 2-way radio battery packs. Special FLEX negative pulse feature prevents crystallization of battery pack. Deep-conditioning battery care feature allows 3 consectutive charge and discharges. Bank up to 12 chargers on a single power source. Built-in switching power supply, for home, office and 12V portable use..... **$59.99**

MH-C777 Smart Universal Charger and Conditioner Rapid charge and rejuvenate almost any NiCD/NiMH battery pack for a two-way radio, camcorder, cellular or notebook computer. Conditioning feature may rejuvenate dead battery packs. Car kit included. Supports 4.8 to 12V battery packs..... **$49.99**



CARRYING CASES

18 HamGear™ Tactical Chest Harness *(left)* Perfect for rugged use, emergency radio operators and on-the-go hams! Use it for portable hamfest use, DXpeditions, field day, biking, hiking, etc. Made of durable heavy duty twill burlap, this interwoven fabric is water resistant and will cushion blows and scrapes. Adjustable shoulder straps. Harness is firmly held in place by stretchable inter-woven elastic belt with snap hook and adjustable sliders supported by nylon straps. A 5 x 7 inch cargo pocket holds another radio, maps, etc..... **$29.99**

15 HamGear™ Belt Radio Holder *(right)* Durable twill burlap pocket with elastic cord and velcro closure easily stretches over any HT. Belt slides easily through 2 x 3 inch loop..... **$14.99**

BATTERIES

92AA01 Super Ni-MH "AA" batteries – they have twice the power of standard Ni-Cads. Rated at 1300 mAh, these NiMH 1.2 volt batteries greatly extend operating time and do not exhibit the capacity reducing memory effect of Ni-Cads. Perfect for use with the MFJ-259B/269 SWR analyzer with its built-in battery charging circuit. The MFJ-631 or MFJ-632 charger *(below)* is recommended..... **$2.99**

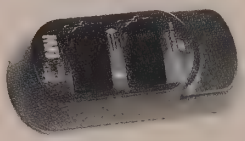
92AA10 Super Ni-MH 10-pack..... **$24.99**

CHARGERS

PowerHaus™ Rapid and Trickle battery chargers Perfect for charging Ni-MH or Ni-Cd rechargable batteries used in your MFJ-259B/269 SWR Analyzer or other equipment. It has a removable dust cover and an AC 12 Volt, 800 mA wall adapter is included. Reverse Polarity Protection and a bright red LED indicator that shows charging status. They Do NOT charge alkaline batteries.

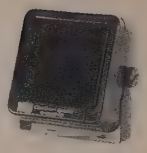
631 Trickle Charger Charges 2 to 4 Ni-MH or Ni-Cd "AA" batteries in 14 hours..... **$9.99**

632 Rapid Charger Quick charges 2 to 4 "AA" or "AAA" Ni-MH or Ni-Cd rechargeable cells in one hour or less..... **$19.99**



641 RapidBattery™ Universal Chargers Charges NiCad or Ni-MH battery packs. Features both quick and trickle cycles. Circuitry with LED indicators determines when the battery is charged, preventing overcharge. Universal interchangeable slots for fast, simple drop-in charging. MFJ-641-I2 (Icom BP-131/BP-132), MFJ-641-Y3 (Yaesu FNB-31/33), MFJ-641-Y4 (Yaesu FNB-40/41/49/V47)..... Closeout **See Price Guide**

SPEAKERS



281 ClearTone™ Communications Speaker Features a 3" *Mylar* cone speaker mounted in a well-designed baffle. Improves speech intelligibility in the 600-4000Hz range while reducing undesirable noise, static & hum. 3.75" x 3"x 2.25"..... **$12.99**

382 Deluxe *ClearTone™* Amplified Speaker An excellent 1 Watt amplified speaker for QRPers, base station HT users or for operating with rigs requiring more volume. A quality 3 inch speaker provides loud, powerful audio. Volume adjusts from barely audible to high. All metal cabinet, rubber feet and vinyl clad cover. Uses 9V battery (not included) or 110V AC with the optional MFJ-1312B ($14.99). Connecting cable is included. 3.5"h x 1.75"w x 4.5"d..... **$39.99**

OTHER ACCESSORIES

701 RFI Free Choke Kit Eliminate common RFI problems by winding offending cables around an RFI suppressing toroid. Effective from 0.5-200MHz. Separates into halves for easy winding of all types of cable: computer ribbon, TV coax, power cord, telephone wire, audio-video cables. Halves mount in snap-together plastic frame. For severe RFI problems and larger cables, multiples can be stacked for more effect. (Pack of 4 toroids)..... **$14.99**

624D Deluxe Hybrid Phone Patch Interfaces telephone line with your rig for running phone patches. Easy to use. Jumper selectable for all Kenwood, Icom, Yaesu and Alinco transceivers using an 8-pin microphone connector. Adapts to work with virtually any rig. Uses 12VDC, 9V battery or 110VAC with MFJ-1312B AC adapter ($14.99). 8"x 2"h x 6".. **$119.99**

931 Artificial Ground Unit Eliminates problems caused by an inadequate ground system when using random length wire antennas. It resonates an additional length of wire to act as a tuned counterpoise. It results in easier tuning, improved efficiency, a better radiation pattern and reduced TVI/RFI. Covers 1.8 to 30MHz, RF ammeter tuning indicator. 7.5"w x 3.5"h x 7"d. *Not for coax fed antennas*..... **$89.99**

315 Jaws Gripmatic™ Adjustable foam-padded jaws lock HT or cell phone in place and secure it for the bumpiest rides. Protects from damage. Quick release button lets you take the HT with you. Adjustable FlexNeck™ provides convenient positioning. Suction cups mount Gripmatic to window. Tabs give easy release..... C/O **$14.99**

POWEREX

Empowering Your Digital Life

MH-C777PLUS

Universal Charger & Analyzer

Analyzes and conditions battery packs.

Supports 3.6V to 14.4V for Lithium Ion.

Supports 1.2V to14.4V for NiMH & NiCD.

Use optional holder for AA, AAA, C, D battery cells.

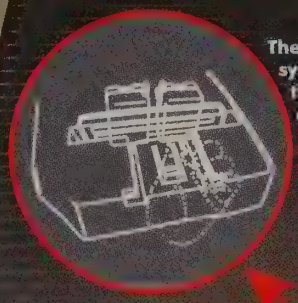
Digitally displays capacity.

Digitally displays voltage.

Digitally displays time.

Light weight travel switching AC adapter (80V-240VAC).

Car kit included.



The "floating contact pins" system enables you to move the contact pins from left to right and top to bottom to charge almost any shape of battery pack.

Sample LCD read out during discharging, showing current voltage, time, and discharging capacity

Sample LCD read out during charging. Shows current voltage, time, and charging capacity

FEATURES

- Analyzes and conditions battery packs.
- Supports Lithium Ion, NiMH and NiCD battery chemistries.
- Digitally displays capacity, voltage and time during charging and discharging.
- Supports a wide voltage range of 1.2V to 14.4V (1 to 12 cells) for NiMH & NiCD, and 3.6V to 14.4V (1 to 4 cells) for Lithium Ion.
- Special external charging connector allows you to charge a wide variety of batteries, including AA, AAA, C, D cells using optional battery holders.
- Intelligent microprocessor driven Negative Delta V detection, Zero Delta V and temperature sensor.
- Includes a light weight travel AC adapter (110/220V) and car kit.

SPECIFICATIONS

Detection: Negative Delta V, Zero Delta V, and tempture sensor.

Chemistry Supported: Li-Ion, NiMH, NiCD

Voltage Supported: 1.2V to 14.4V (NiMH, NiCD), 3.6V to 14.4V (Li-Ion).

Rapid Charge Current: 800mAh +/- 50mAh for NiMH & NiCD and 400 mAh max for Lithium Ion.

Trickle Charge Current: 70mA

Discharge Current: 300mA

Safety Timer: 13 Hours

Adapter: 100-240VCD 50/60Hz Auto switch to 24VDC 0.83A

WWW.MAHAENERGY.COM

Maha Energy Corp. 545 C W.Lambert Rd. Brea, CA 92821
Tel: 714.990.4557 Fax: 714.990.1325 http://www.mahaenergy.com

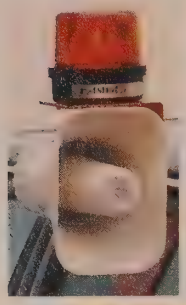
BROUGHT TO YOU BY

MAHA®

GROTHE

SIRENS & HORNS

VS-2 Emergency Vehicle Siren Designed for the volunteer fireman, a quality-built wail-yelp alarm that delivers big sound performance (120dBa sound level at 4 ft.). Frequency range is 600 to 1200Hz. It is pre-wired with a 3-position switch (Yelp-Off-Wail). High efficiency waterproof horn speaker. Also includes 10 ft. cable, mounting bracket and hardware. 12VDC @ 1.5A, 2.7 lbs **$89.99**

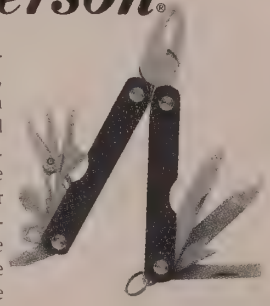


VS-2LS Siren–Light Combo A one-unit siren and yelp alarm, revolving halogen light and window mount. Fits all cars, slides on top of car window and plugs into cigarette lighter. The power plug contains an "on" LED and three position switch to select Yelp, Off or Wail modes. 12 VDC @ 5A. Specify AMBER, BLUE or RED light..... ea. **$299.99**

VS-3 Vehicle P/A and Airhorn w/Rebroadcast A big, powerful airhorn sound with four different sounds (no siren) calls attention to your vehicle. Delivers 120dBa level at 4 ft. Locking down the microphone with the supplied rubber band, you can monitor sound from a mobile rig, scanner, etc. via the speaker outside. Includes horn speaker, microphone, electronic center, 10 ft. cable, mounting bracket and hardware. 12 VDC @ 1.5A..... **$129.99**

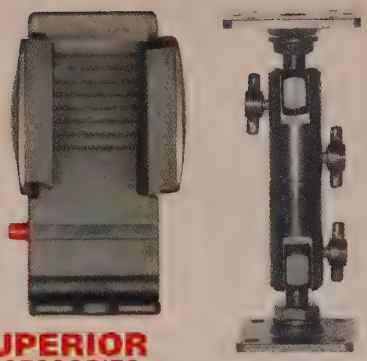
VS-4 P/A Emergency Vehicle Siren Contains P/A, rebroadcast, wail, yelp, pulse and airhorn. P/A override features, plus volume control of all siren modes. Restricts output when operating in people places. Includes horn speaker, microphone, electronic center (3 x 3.5 x 2 in.), 10 ft. cable, mounting bracket and hardware. 12V DC @ 1.5A..... **$139.99**

Emerson®



RP-001 Mini Multi-Tool 12-function, stainless steel with unique rubberized handle. Folds to 2.5". • Pliers with versatile serrated jaw • Regular and Phillips screwdrivers • Knife blade • Scissors • Nail file and pick • Bottle opener scraper • Wire stripper • Lanyard attachment and key ring..... **$6.99**

RP-103 Multi-Tool 12-function, stainless steel with unique rubberized handle. Folds to 4"..... **$6.99**



SUPERIOR ACCESSORIES

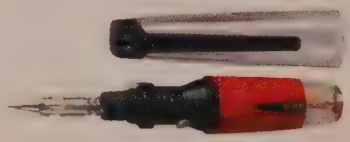
18640 Universal Phone HT/GPS Holder *(left)* Keeps your phone, HT or GPS at your fingertips in your vehicle. Press the red button on side of cradle to open the rubber padded grips. Insert unit, squeeze grips and a ratcheting action adjusts to safely hold units 1.25 to 2.5" wide. Press the button again for quick release. 4.875" tall, attaches to optional mount or your mount with screws provided **$14.99**

HOU CPM-310 *(right)* 6" pedestal mount **$14.99**

ISOTIP

WAHL Clipper Corporation

7740 Cordless Soldering Iron Provides tip performance up to 50 watts and over 700°. Contains premium NiCad rechargeable battery for high-rate charging; a partially discharged unit will return to full capacity within 1 to 2 hours, with a complete recharge in 3 to 4.5 hours. Replaceable battery and worklight. Comes with recharging stand, fine and heavy tips..... **$47.99**



7971 SolderPro 50 Usable as a soldering iron, torch, hot knife and heat tool using interchangeable tips (not included) • Heats up from to 410°F to 750°F within 10 seconds • Runs up to 30 minutes • No electrical current • Easy refill, powered by standard cigarette lighter butane (not included) **$19.99**

7974 SolderPro 70 Usable as a portable soldering iron, torch, hot knife and heat tool using interchangeable tips (not included) • Heats up from 410°F to 850°F within 10 seconds • Runs up to 120 minutes • No electrical current • Easy refill, powered by standard lighter butane (not included) . **$27.99**

we have a **SECURE** web site at **www.aesham.com**

Weller

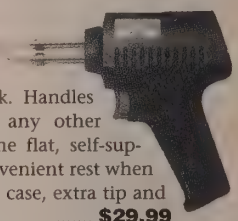
SOLDER EQUIPMENT

W-60P 60W Pencil-Type Soldering Iron *(left)* For most circuit work. Supplied with ⅛" 700°F screw-driver tip. 7.5" long, 2.5 oz., 6 ft. cord, 120V .. **$64.99**

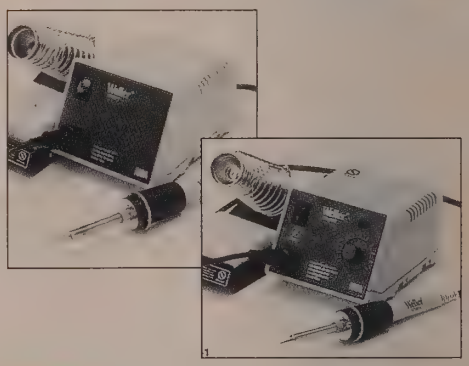
WP-25 25W Pencil-Type Soldering Iron For work on delicate electronic circuits. 750°F tip temperature. 7.875" long, 1.75 oz., 4 ft. cord, 120V AC.. **$34.99**

WSTA3 Pyropen® Butane Soldering Iron *(right w/case)* Light-weight and completely portable. Operates for up to three hours on a charge of regular cigarette lighter butane (not included) container. Soldering temperature control is adjustable from 392° to 932°F, with a very fast heat-up time. It's ready to solder in just 30-seconds! Supplied with tips for soldering, hot air (1202°F), and brazing..... **$99.99**

WST2 Pyropen® Jr. *(middle)* Portable mini butane powered soldering iron. Recharges in seconds from a regular cigarette lighter butane (not included) container. Soldering temperature is adjustable from 392° to 842°F. Also, hot blow feature (806°F) and torch feature (2372°F). Has handy pocket clip..... **$89.99**



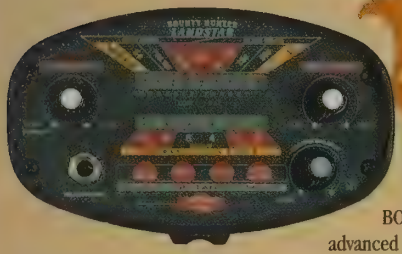
7200PK Multi-purpose Soldering Gun Compact, lightweight, 75 watts for bigger work. Handles connectors and almost any other heavier soldering job. The flat, self-supporting back acts as a convenient rest when not in use. With carrying case, extra tip and solder. 120VAC..... **$29.99**



WTCPT Controlled Output Soldering Station *(left)* This pencil iron is safe for soldering ICs. Power unit with unitized on-off rocker switch with indicator light. Storage tray holds extra tip and cleaning sponge..... **$119.99**

EC-1002-1 Compact Soldering Station *(right)* Soldering pencil stand connects to right or left side of unit. Variable temperature, indicator light, self feeding reservoir with cleaning sponge. Tray stores extra temperature sensing tips **$199.99**

Rediscover Your History



The **Land Star**™ boasts more features than other costly detectors. Includes a BOUNTY D-Tech™ open-face search coil, advanced microprocessor electronics, 3-tone discrimination and Ground Trac® retune. Add a multi-function LCD & touchpad control, and you've got a detector equally at home relic hunting, coin shooting, or gold prospecting. Set the notch to reject items, or let Land Star "Auto Notch" to detect coins buried 12"deep. $349.99

Newcomers to treasure hunting should not be shortchanged when it comes to features – or quality. That's why there's the **Fast Tracker**™. It offers 7" BOUNTY D-Tech™ search coil (adjustable angle), dual-tone audio discrimination, motion all-metals mode, auto ground balance, low-battery alert, built-in speaker, headphone jack, and lightweight S-rod comfort-grip handle with stand. $99.99

Treasures that have been missed by generations won't escape the penetrating power of **Sharp Shooter II**™. Comes with digital LCD readout, touchpad control, and interchangeable BOUNTY D-Tech™ search coil. Also features 3-tone audio discrimination, selectable auto/manual notch level, auto ground balance, battery indicator, S-rod comfort-grip handle with stand, headphone jack, and built-in speaker. $279.99

The Bounty Hunter **Quick Draw II**™ metal detector packs powerful features, like an advanced Zilog Z-86 circuit, for superior discrimination and control. Also includes waterproof BOUNTY D-Tech™ search coil, 3 levels of iron discrimination, both target ID and depth readout, sensitivity control, full discrimination, auto and variable notch, and low battery indicator. Detects up to 10" deep – larger objects up to 5'. $224.99

The optimum combination of power, ease-of-use, affordability, and big finds – every time: the Bounty Hunter **Tracker IV**™. Built with a fully-submersible 8" BOUNTY D-Tech™ search coil, sensitivity meter, built-in speaker, headphone jack and battery indicator. Tracker IV features 3 different user-adjustable operating modes: Motion All-Metals Mode, Full Discrimination, and Tone Discrimination. $129.99

James Garfield was shot on July 2, 1881 and lingered until September 19, 1881. The problem was a bullet lodged in his chest. If it had penetrated an organ it would mean certain death. If the bullet had missed, chances of recovery were greater. Therefore, finding the exact location was critical. X-rays had not yet been invented, so the only way to determine the location was to probe manually.

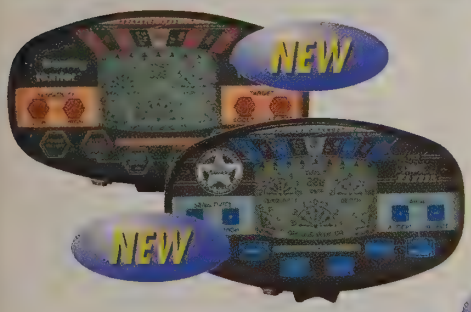
Simon Newcomb had been experiementing with running electricity through wire coils and the effect of metal placed near them. He found metal near the coils emitted a hum. The problem? The hum was so faint it was difficult to hear.

Upon reading this account, Alexander Graham Bell telegraphed Newcomb and offered to assist.

On the evening of July 26, Bell, his assistant Tainter, and Newcomb made an attempt to locate the bullet using their apparatus. The results were inconclusive as there was a hum no matter where the wand was placed on the president.

The problem was the bed. The White House was one of the few places utilizing spring mattresses. Bell and Newcomb's invention was detecting metal, the springs. If they had moved Garfield, the detector would have found the bullet, likely saving the president.

BOUNTY HUNTER
Rediscover Your World



MORE BOUNTY HUNTER DETECTORS

Land Ranger *(left)* Top-of-the-line professional metal detector offering high-end features for the serious detectorist. The Land Ranger is designed for every metal detecting application at a pro level. All functions are highly visible with no hidden programming. The touchpads keep all modes at quick and easy access while the LCD emits a constant reference source maximizing every possibility for finding treasure. • 8" waterproof, interchangeable searchcoil • No-motion all-metal mode • 9 LCD readout system with numerical values to discriminate coins • SmartTrac® ground control **$449.99**

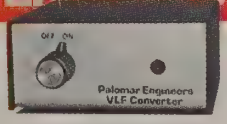
Time Ranger *(right)* Recover more relics and valuables from the past then ever before. The Time Ranger's powerful circuitry and smooth operation combine to deliver absolute performance. The innovative Sniff-Mode can be used in specialized applications when rejection/acceptance of a particular object is desired. • Blanker system eliminates surface while searching deeper • Fully programmable touchpad selection • LCD readout system with numerical values • SmartTrac® ground control **$549.99**

BOUNTY HUNTER ACCESSORIES

CARRY BAG Bounty Hunter® Padded Carrying Case Protects your metal detector from the elements, while in storage, and in transit. Made of rugged double-stitched nylon construction. Includes handy outside zip-pocket for extra batteries from small accessories **$29.99**

10" COIL 10-inch Magnum Coil Adds extra depth for relic and cache hunting..... **$59.99**

Palomar Engineers



VLF CONVERTERS

Receives and converts 10kHz to 500kHz (VLF) to tune on the 80M band. 2 models tune this low range on either a general coverage receiver or Ham band transceiver. Uses 9V battery. 2"h x 4.25"w x 5"d.

VLF-A Use with Ham Band transceiver **$99.99**
VLF-S Use with General Coverage receiver **$99.99**

Q-VIEW QSL CARD HOLDERS

Proudly display your favorite QSL cards in these 12" x 40" clear plastic hanging holders. Each holds 20 3.5" x 5.5" cards. Open at center to receive cards easily. Pack of three (displays 60 cards)..... **$12.99**

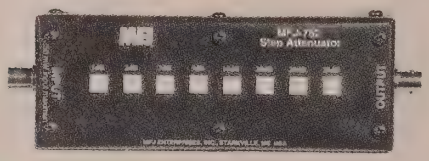
Service Questions?
414-358-4087
Milwaukee, WI

MFJ ENTERPRISES, INC.

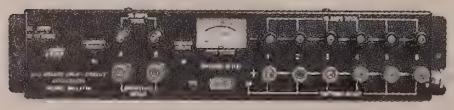
434 Contest Voice Keyer™ New design, microprocessor controlled transformer-coupled – No RFI, hum or feedback. Automatically call CQ, send your call and do contest exchanges in your own voice! • Store frequently used phrases like *"CQ. Contest this is AA5MT"*, *"You're 59, QTH is Mississippi"*, etc. Record and play back five natural sounding messages totaling 75 seconds – EEPROM storage • Repeat messages continuously and vary the repeat delay from 3 to 500 seconds • Receive and play back off-the-air signals • Easy to use – plug in an 8 pin microphone cable and plug the MFJ 434 shielded cable into the microphone input • Internal jumpers allow customization to Kenwood, Icom, Yaesu, Alinco and others • Controls tailor audio level to match your voice • Built-in speaker and audio amplifier • Uses 9V battery, 9-15 VDC or 110 VAC with optional MFJ-1312B. 6.5"w x 2.5"h x 6.5"d..... **$169.99**

73 Remote Control Head with cable..... **$29.99**

616 Speech Intelligibility Enhancer™ Provides nearly a 20dB audio frequency boost or cut to four overlapping octave ranges centered at 300, 600, 1200 and 2400Hz. Improve the ability to hear and understand SSB, FM, AM, CW QSOs by adjusting the response level to match hearing response for best clarity, then equalizing perceived loudness to each ear. Built-in dual 2.5W audio amps, front panel jack, speaker on/off switch, 2 selectable transceiver inputs, bypass switch. Use with any rig or PA systems. 10"w x 2.5"h x 6"d, requires 12 VDC..... **$159.99**



762 Step Attenuator Provides push-button selection of up to 81dB attenuation in 1dB steps • Excellent performance up to 170 MHz, usable to 500 MHz • 50Ω, 250 mW maximum input • BNC connectors with BNC-to-SO-239 adapters included • All metal cabinet, 6.5"w x 2.5"h x 1.5"d... **$69.99**



1118 Deluxe Multi DC Outlet Connects to battery or power supply, providing power distribution to multiple devices. Two pair of heavy-duty 30 amp, 5-way binding posts for transceivers or amps. Fused individually and RF bypassed, rated 35A total. Also, 6 pair of binding posts for accessories, 15A total, master fuse. ON/OFF switch, power indicator, 0-25V DC voltmeter. Includes 6 ft. 8 ga. cable with terminals. 12.5"w x 2.75"h x 2.5"d..... **$74.99**

1116 Similar to 1118, without 30A posts. Provides 8 RF bypassed 5-way binding posts..... **$49.99**

1112 Similar to 1116 but with 5 posts, no voltmeter or ON/OFF switch..... **$34.99**

TIMEWAVE TECHNOLOGY INC.

DSP-599ZX Digital Signal Processor Superior performance in reducing QRM and QRN. Incorporates the newest high speed CPU that gives unparalleled features and is field upgradeable. The LCD display, push buttons, and "Visible Memory" let you see exact settings of the filter. Optical encoders for continuous tuning of filters.

NOISE REDUCTION Examines and measures signal and noise correlation, and dynamically filters out the undesired noise that is outside its correlation thresholds.

DATA and BANDPASS FILTERS Filters with steep skirts and linear phase response for CW and RTTY dig out extremely weak signals. Filter skirts are so steep that a signal literally falls off the edge of the passband as you tune through a signal. Bandwidths range from 10 Hz to 600 Hz, and center frequencies from 200 to 2150 Hz. Wider filters allow easy tuning and listening to multiple CW signals simultaneously. Data filters supported in this filter are **RTTY, AMTOR, PacTOR, G-TOR™, HF Packet, SSTV, WeFAX, SITOR** and **CLOVER**. RTTY mode has two methods of being used in addition to regular filtering. You have a complete data modem designed for RTTY. You can use the remodulator mode that detects and regenerates the mark and space to the modem.

TEST INSTRUMENT MODE Provides an audio sine wave generator, audio millivoltmeter and two-tone audio generator for maintenance/setup of audio circuits in radio equipment.

VHF/UHF WEAK SIGNAL AND AURORA Provides remarkable improvement in clarity for weak signal work in the presence of line noise and other interference. And those work a lot of aurora will be amazed at how the DSP-599zx improves the readability of normally distorted SSB signals... **$399.99**

UM Unified Microsystems

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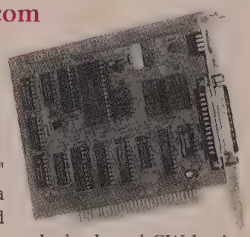
CONTEST CARD



W9XT Contest Card for IBM™ & PC Compatible
A non-volatile 5" x 4.5" card that plugs into a single 8-bit PC slot and provides voice recording, playback and CW keying. Stores a total 60 seconds of voice audio divided into four 15 second messages. Samples at 8 kHz for high quality and natural sound. Does not use any disk space. For CW, the card frees up the PC port, and a relay allows operation with positive or negative keying. Works with all rigs and is compatible with most popular logging programs..... **$149.99**

CCC-4 or **CCC-8 Contest Card Cable Semi-kit** Wired and tested except for connectors to mic and transmitter. Includes 6 ft. shielded cable, CW keying line and record switch (4 or 8-pin)..... ea. **$44.99**

YAESU

FM REPEATERS

• 2–25W 100% duty cycle • 8 channels – PLL synthesizer • Optional programming kit • CTCSS enc/decode • Program-mable features: Frequency, CTCSS, Hi/Low power, Hang timer, Time-out timer • Wall mount or optional 19" rack mounting kit • DB-25 connector and 8-pin modular jack • Modular card style unit construction • Optional Comm Spec ID'er • 14.75" x 10.75" x 4.375", 25 lbs.

VXR-5000UCDC 440MHz, DC **$1199.99**
VXR-5000U/TC 440MHz, AC ps ... C/O **1299.99**
VXR-5000VADC 2m, 12VDC **1199.99**
VXR-5000V/TA 2m, AC supply ..... C/O **1299.99**

VECTRONICS

Electronic Kits Each kit features a professional quality epoxy glass PC board with solder mask & screen printed component legend, step-by-step manual and high quality components. • 40M rcvr • Crystal radio • 40M CW transmitter • AM radio transmitter • TV transmitter • Aircraft rcvr • 2M preamp • 220MHz preamp • CW keyer • Battery conditioner • FM broadcast SCA decoder • CW audio filter • CW filter/amp kit • SSB audio filter • Tunable SSB/CW audio filter . **See Price Guide**

AOR

TDF-370
Multi-Media Terminal with DSP Listen to amazingly clear audio, transmit and receive PSK31 and RTTY, apply potent filtering and hear "weak ones" others may miss. Digital modes without a PC! • Use powerful DSP noise reduction and filtering, including Fast Fourier Transform. Auto-Notch function • Enhance audio reception of SSB and CW signals • Monitor SSB and CW signals in derived "stereo" • Decode and display PSK31 or RTTY, on the LCD • Enhance transmitted audio with 8 channels of microphone equalization • Digital Voice Recorder • Receive SSTV 56.7kHz (PC and software needed) • 2 selectable front panel inputs • Six outputs: phone, stereo headphones (included) internal or external speaker, mic, PTT and COM (RS-232C RTTY, PSK31, 9600 bps, SSTV-56.7kHz) • Requires 4 "AA" batteries alkaline, NiCad or NiMH or regulated external 9-15 VDC supply • 3.3"h x 4.3"w x 6.2"d, 12.3 oz..... **$329.99**

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WEST MOUNTAIN RADIO

RIGblaster

The easiest way to properly connect a radio to a computer's sound card in order to operate using any present or future Ham Radio sound card software. Presently, ham radio sound card software, a RIGblaster, a radio and a computer is the easy and modern way to operate. A RIGblaster, plus a PC, take the place of old expensive adapters or TNC's.

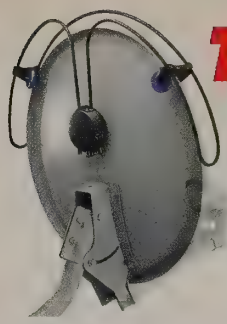
PSK31 • MFSK16 • MT63 • Helischriber SSTV • RTTY • AMTOR • PACTOR • PACKET APRS • CW • Contest Voice Keying • W5JT High Speed FSK Meteor • CW High Speed Meteor Scatter • FM Repeater Announcements Simplex or Duplex Repeater Control

All RIGblasters come complete with everything needed to get on the air: CD, 4 cables and a 12V power supply. For a temporary or mobile setup, or operating phone using a microphone will never be of any interest, get the less expensive NOMIC model. If there is a need to operate the computer and also operate with a microphone, the 8-pin or RJ-45 modular jack model is available. To do all of the above, plus have the capability to operate direct keyed CW or FSK, opt for the PLUS model.

RC/M8/C RIGblaster 8 pin connector **$109.99**
RB/PL/C RIGblaster PLUS 8 pin **139.99**
RB/RJ/C RIGblaster RJ-45 modular **109.99**
RB/NO/8C RIGblaster NOMIC 8-pin **59.99**
RB/NO/RJC RIGblaster NOMIC RJ-45 ..... **59.99**

461 **Pocket-Size Morse Code Reader™** No cables to hook-up, no computer, no interface, no other equipment needed. Simply hold the unit near your receiver and it instantly displays CW text in English! Automatic Speed Tracking and instant 140 character replay on a 32-character LCD display. Smaller than a pack of cigarettes, only 2.25"h x 3.25"w x 1"d, and weighs 5.5 oz. If desired, a serial port lets you display CW text on a monitor using a computer and terminal program. When it's too noisy for the microphone pickup, or when you don't want to hear CW, you can connect directly to a receiver with an optional cable. Battery saver mode puts it to sleep during periods of inactivity. Uses 9 Volt battery (not included) **$79.99**

MFJ-5162 **Receiver Cable** Connects MFJ-461 to a radio's external 3.5mm jack **$4.99**



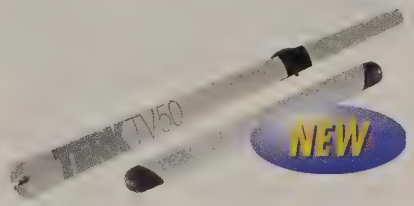
TERK

CLIP-ON TV ANTENNAS

TERK's amplified clip-on antennas attach in minutes to any 18" satellite dish and complement it by adding reception of all local VHF/UHF channels. Both models cover channels 2-83 and FM broadcast They contain an internal 10dB amplifier that minimizes signal loss so signals may be distributed to multiple television sets. Power is supplied by your DSS receiver, thru the cable. 10.25"h x 21.25"w x 3.5"d. Durable powder-coated element and weatherproof amp housing.

TV-41 For Single-LNB dishes. It has a diplexer that combines DSS and VHF/UHF signals onto a single coaxial cable. A second, separate diplexer splits satellite and local signals so users can switch between satellite channels and off-air local channels by pressing the antenna button on the DSS receiver's remote controller **$49.99**

TV-42 For Dual-LNB dishes. It has two built-in diplexers that provide more than one TV set with DSS signals from the dish and VHF/UHF television signals from the antenna **$59.99**



AMPLIFIED OUT/INDOOR TV ANTENNAS

TV-50 *(top)* Only 76"w x 2.5"h x 1.25"d, mounts almost anywhere inside or outdoors. Horizontally polarized single element VHF and UHF dipoles provide multi-directional TV/FM reception over the 54–806 MHz range. For weaker stations, a built-in ultra low-noise 10db amplifier can be switches in for improved reception. Powers from a supplied 12V adapter which terminates in a box containing an On/Off switch, connectors and a cable that goes to the TV. Includes 30', 20', 6' and (2) 3' cables, combiner/ diplexer, splitter/diplexer, coaxial barrel connector and rubber insulators. The diplexers let you run signals from both a satellite dish and the TV-50 to your TV using a single cable **$79.99**

TV-55 *(bottom)* Uses a helical, coiled broadband single element engineered for clear, powerful reception of HDTV broadcasts. Receives both UHF & VHF frequencies from 54-806 MHz. Built-in ultra-low noise 10dB amplifier can be switched in or out for best reception. Mounts inside or outdoors, only 46"w x3.5"h x 2.25"d. Includes a 12V adapter and mounting hardware **$89.99**

TSP-6 **Surge Protector** Protects satellite, CATV/antenna, phone, fax, and modems from damage caused by surges and spikes while providing constant EMI/RFI noise filtering. • Resettable circuit breaker • Surge and ground protection LEDs • Auto shut off if protection is destroyed • 8 outlets with safety covers (3 wide spaced) • 6' power cord with slim-line plug, 6' TV/ satellite and phone cables • Rated 125V @ 1 Amps, 1875W ... **$39.99**

STEREO ANTENNAS

AF-9330 **AM-FM Tower Antenna** Built-in amp with gain contol improves AM and FM reception. Works with tuners and receivers with 75Ω or 300Ω FM antenna inputs. The AM connection consists of a pair of wires with U-clips. Useful 30-40 miles from the broadcast transmitter **$24.99**

AM-1000 **External AM Antenna** A passive, fully adjustable 530-1600kHz AM broadcast antenna that improves reception over built-in loops. It is used unattached, next to the radio. Position for best reception, then rotate the tuning dial located at the center of the antenna to match the AM frequency tuned in on the radio. For best performance, it may be connected directly to an external AM antenna input **$49.99**

AF-9925 **Powered Stereo Antenna** AM-FM (pi) Gamma Loop® FM circuitry improves FM receiver performance by receiving FM frequencies only ... no noise! Receives more local and distant stations while eliminating multipath interference and distortion. Outstanding AM reception too! **FM section:** Operating Band: 88 – 108MHz • Amplifier Gain Range: Adjustable, -20 to +42dB, 3dB N.F. • Pickup Pattern: Omnidirectional • Impedance: 75Ω adaptable to 300Ω input with matching transformer included **AM section:** Frequency Range: 500-1700kHz • Gain: +15 dB, 1.5dB N.F. • Output: Twin-lead independent circuitry • Impedance: 75Ω adaptable to 300Ω input with matching transformer included **$49.99**

NETWORK SYSTEM

LF-20 **The Leapfrog Wavemaster 20 System** Transmits picture and sound from your main TV to anywhere in your home. Eliminates the need for expensive and difficult-to-install in-wall wiring. Operates on 2.4GHz for reliable reception up to 100 feet away. It features both standard RF connectors and coaxial (RCA) jacks, for connection to any type of TV set, new or old, as well as audio or audio/video components **$89.99**

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CSI® CONNECT SYSTEMS INC.

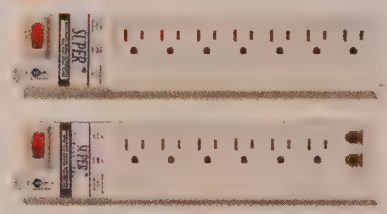
INTERCONNECTS

Fully automatic interface between an FM base radio and phone line to initiate and receive phone calls in a mobile or on an HT without assistance. The CS-800 and CS-900 each contain powerful microprocessor controlled features such as: 90 memory speed dialer • Redial • Built-in programming keyboard and digital readout • Remote base mode • Regenerated tone or pulse dialout • CW ID • Toll restrict

CS-800 Full Duplex Interconnect Operates full or semi-duplex and also has a built-in repeater controller. Simply connects to transceiver mic and speaker jacks. FCC and DOC approved. 12-15 VDC. 7⅛"w x 7½"d x 2"h, 2½ lbs..... **$369.99**

CS-900 Control Station Simplex Interconnect For use with any simplex transceiver. Also use thru remotely located repeaters (from base) for added range. Digital voice delay standard. Connects to mic and speaker jacks of simplex transceiver. FCC and DOC approved. (Transceiver switching speed does not affect performance) 12-15VDC 7.9"w x 7.5"d x 2"h, 2½ lbs **$369.99**

TRIPP LITE THE POWER PEOPLE



SURGE SUPPRESSORS

SUPER-7 For spike suppression and noise filtering, 18,000 amp surge suppression, and RFI/ EMI filtering. Seven outlets, 7 foot cord, three diagnostic LED indicators **$19.99**

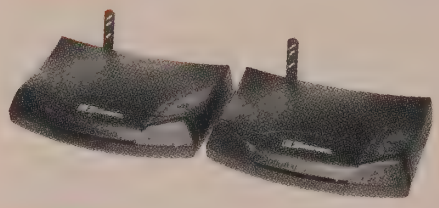
SUPER-7+TEL Same as above, but features fax/ modem protection for RJ-11 modular jacks **$29.99**

ISOBAR-8 ULTRA Premium Surge Protector Rugged all metal housing – won't break or burn • Isolated filter banks to eliminate interference between connected equipment • Massive 1,200 joule, 96,000 amp spike supression • Diag-nostic alarm system indicates wiring faults, protection circuitry and power line status • 8 outlets, extra long 12 foot cord..... **$79.99**

Emerson

EVO-6500 900MHz Wireless Portable Video Observation System with 5" Monitor Set includes one 900MHz camera/transmitter and one 5" black-and-white monitor/receiver. Closed circuit monitoring systems lets you keep an eye on your private property, baby's room, or business. It's fully wireless - transmitting audio and video signals up to 300 ft. (150 ft. thru walls, floors, ceilings). The battery or AC operated camera features: wide-angle lens, infrared LED's for operation in 0 lux environments, two selectable channels (allowing use of multiple cameras), A/B channel selector, built-in microphone, tripod and wall mount. Camera: 2" x 3.75" x 5.5" Monitor: 6" x 8.25" x 6.25"..... **$169.99**

EVO-6550 Second camera **$99.99**



EVS-5000 2.4GHz Wireless Audio/Video Sender Set includes one 2.4GHz transmitter and one 2.4GHz receiver • Four selectable PLL channels minimize interference and allow use of multiple systems in the same area • Transmits DSS. DVD, CATV, CCD, camcorder, and VCR stereo audio and video signals throughout your home • Up to 300 ft. range (150 ft. through walls, floors and ceilings) • Special antenna design prevents multi-path distortion • Super high S/N video output • Includes 110V AC adapters and RCA cables • 6.25" x 6.25" x 2.75"..... **$79.99**

TV ALLOWANCE

MIN 100 Television Time Manager TV Allowance™ sets weekly allowable TV or video game time. Simply plug the TV into the locking compartment, lock the compartment and plug it in. You program the unit for the amount of time to be allowed for viewing each week using a master code. Each child (up to 4 children) receives a code which is used to access the TV. As each child uses their own code to view a program, their particular account is debited for each minute of viewing. When the account is empty, the TV shuts off and will not turn on for that code until the following week when it automatically rolls over and gives the child the next allowance. Other features include: **BLOCK** ability that can be used to block out time periods. **LOOK** button to check time remaining. **SAVE** function to accumulate time from week to week. **MASTER CODE** for parent, babysitter or special viewing. TV Allowance does not interfere with VCR, cable or remote operation - and kids can't cheat!..... **$79.99**

WINEGARD® Clearly the World's Best®

PROSTAR® 1000 VHF/UHF/FM Antennas Features die-cut impedance correlator that allows close spacing of antenna elements. Manufactured from high tensile aluminum for a strong, compact antenna that will better withstand strong winds and ice loading. Aluminum is protected with high-quality polymer finish.

PR-7010 Metropolitan *(bottom)* 22 active elements (9 VHF, 13 UHF) • 66.5" boom **$39.99**

PR-7032 Far Suburban *(middle)* 33 active elements (13 VHF, 20 UHF) • 103.25" boom **$64.99**

PR-7042 Fringe *(top)* 43 active elements (17 VHF, 26 UHF) • 149.75" boom **$99.99**

SM-2200 Scanner Antenna Vertically polarized, omni-directional pattern. Pass band covers LO, HI and UHF public service bands, including Marine and Aircraft. Coated with a high quality polymer to prevent surface oxidation in any weather. Mounts below TV antenna or on separate mast. Includes 50' of 75Ω coaxial cable with F-connectors attached..... **$45.99**

TVGuardian™ The Foul Language Filter

TV GUARDIAN Foul Language Filter A small computer that easily connects between your television and VCR. It continually monitors the closed-captioning embedded in the video signal and references each word against an internal directory of over 100 offensive words and phrases. If a word in the directory is detected, the audio is muted. It also removes the offensive word from the closed-captioning and replaces it with a profanity-free version.
Three filter settings: Off, Tolerant Mode and Strict Mode. Three closed-caption options: Off, Display Text During Mute Only and Full-Closed Captioning. All settings and cable connections are capable of being secured under lock and key **$89.99**

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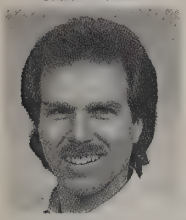
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JIM WJ9P

MIKE N9LBQ
SALES MANAGER

PAUL W9KHO

SKIP KB9PBQ

TOM W9TJP

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DAVE WB8BAG

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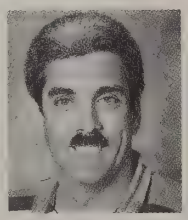
ART K7ZE

CHUCK K3CEC

JIM WD6FYX

LUKE KK7BW
STORE MANAGER

SQUEAK AD7K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ERNIE K1HO

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ABREVIACIONES IMPORTANTES

AMP	Amplificador
ANT	Antena
AT	Acoplador automatico de antena
BATT	Batteria
BKT	Braket de montura
BPR	Guarda choque
CGR	Cargador
CIG	Conector cigarillo
CNTR	Contador
DB	Decibeles
DLX	Lujo
DPLX	Duplexador
EL	Elemento
FREQ	Frequencia
GND	Tierra
GTR	Labio de ventana
HT	Radio de mano
HVY	Pesado
KYR	Llave
MA	Miliamperes
MAG	Magnetico
MAINT	Mantemiento
MIC	Microfono
MT	Montura
MTG	Montura
NMO	Montura Motorola
PROG	Programable
PS	Fuente de poder
PWR	Poder
RCVR	Receptor
REM	Remoto
SENS	Sensitividad
SPKR	Bocina
SPLX	Simplex
SYS	Sistema
TTP	Teclado de botones
VOL	Volumen
W/	Con
WPM	Palabras por minuto
XCVR	Transceptor

Para Contactar:

AES® • 621 Commonwealth Avenue, Orlando, Florida 32803, EUA Tel. 1-407-894-3238; Toll Free: 1-800-327-1917; Fax: 1-407-894-7553; Internacionales: 1-407-898-1166

Forma de pago: El pago que se prefiere es por transferencia de fondos. Nuestra dirección para la transferencia de fondos es: Nations Bank, Fashion Square Branch, Orlando, FL. Routing #063100277, para crédito a Amateur Electronic Supply – Acct. #2836088068.

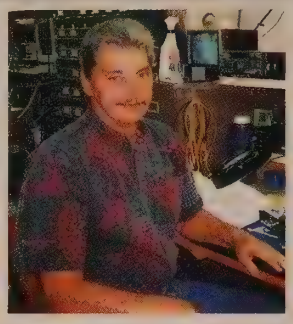
Método de envío: El envío se hará de acuerdo con sus instrucciones. Si UD. no las indica AES hallará el método más adecuado.

Garantía: La fábrica garantiza sus equipos únicamente dentro de los Estados Unidos. Si su equipo necesitara reparación debe devolverlo a AES con una copia de la garantía y de la factura dentro del plazo autorizado por el fabricante. AES se reserva el derecho de reparar o substituir el equipo que no funcione como diseñado por razones que no resultaron por daño durante el envío. Al recibír el equipo que no funcione o por defectos debe notificarse a AES antes de los 10 días después de recibido. El equipo debe empacarse en la caja original usando los materiales de empaque originales. **El costo del envío, tanto de ida como de vuelta, es por cuenta del cliente.** Los precios y garantías pueden cambiarse sin previo aviso. Algunos productos no pueden ser exportados a ciertos países de acuerdo con las legislaciones locales.

Unlike some dealers, when you purchase a New radio from us our Service Department is able to provide you with outstanding technical support. Our technicians have decades of cumulative experience in the ham service field.

Miles, K9HMQ • Milwaukee

STEVE, N9SO • Milwaukee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RAUL, WD2AEQ • Orlando

Call 414-358-4087 for SERVICE

Warranty Service

New radios purchased from AES within the manufacturers' warranty period will be repaired at no charge by AES or the manufacturer. Please refer to manufacturers' warranty information when unsure of warranty time periods.

Out-Of-Warranty, Late Model Equipment

Whether the item was purchased from us or not, we will attempt to service it, provided service parts are still available. Before shipping your out-of-warranty items, arrangements must be made by phoning the Milwaukee Service Department at 414-358-4087

Shipping Equipment for Service

Before sending your item, make sure you contact the nearest AES location and find out the time frame for repairs. If you are concerned about time limitations, this will help you determine where to send the repair and how long your radio will be out. Always include the following along with the item being shipped:

- a detailed note describing the problem(s)
- your address, day-time phone number, and email address
- a copy of the original invoice, if item is still under warranty
- the method of payment (see Policies page for options)

After packing your item securely in a box with ample packing materials (foam, styrofoam spacers, etc.), mark the shipping label "ATTN: Service." And, always insure your items when shipping.

Labor Rates

Out-Of-Warranty Service $54 per hour

- $72 minimum on HF/VHF Base Stations
- $54 minimum on VHF Mobiles and Handheld Transceivers
- Rates do not include Parts and Return Shipping.

Shipping Information

FLAT RATE SHIPPING via UPS Ground Method in the Lower 48 States

AMOUNT OF ORDER	SHIPPING CHARGES
Up to $100.00	$4.99
$100.01 to $500.00	$9.99
$500.01 to $1,499.99	$14.99
$1500.00 & UP	PREPAID

Flat Rate Does Not Apply To Drop Shipments

Flat Rate Advantage – No Penalty for Number of Cartons or Weight!

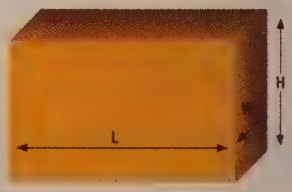
EXCEPTIONS TO RATES ABOVE

Optional UPS methods (Red, Blue & Orange) and any USPS methods are charged at Regular Rates without any credit for UPS ground rates. COD's are not accepted for these other methods.

Shipments to APO/FPO go via Priority Mail. Puerto Rico, Alaska and Hawaii can be shipped to via Priority Mail or Blue Label. Orders exceeding UPS or USPS weight, size or value limits will be shipped via Truck or Air Freight collect. Shipping charges taxable in WI, FL & NV.

Please see Policies Page for complete information.

NOTE: Tracking numbers for out-bound shipments are gladly given. Call our local number, 414-358-0333, and ask for tracking number service.



$$\frac{L \times W \times H}{194} = \text{Dimensional Weight}$$

Packing

When returning heavy, delicate, and expensive equipment, it must be carefully packed in order to avoid damage caused by normal transportation dynamics. In other words, if you put your FT-1000D, TS-940S or AL-1500 in a box with little or no packing beneath it, chances are it will sustain some damage. When contents of packages are damaged, claims will be paid only if the carton and packing meet standards set in the International Safe Transit Association Procedure 1 and 1-A. These standards simply state that cartons and packing should provide reasonable protection to their contents. Ideally, contents should be suspended in the center of the carton by the packing material, no less than three inches on all sides for heavy items. For items heavier than 20 pounds, three inches of foam or crumpled paper should be used instead of polystyrene edge protectors.

Include information

When you send your well-packed parcel to AES for repair, return or trade-in, be sure to include a letter inside the package. Do not rely on information written or taped on the outside of the carton. This information can be destroyed by moisture or abrasion. In the letter, put your call, name, address, phone and reason for return. You may also want to include your e-mail address and times you can be reached via telephone.

Dim Weight

When calculating the cost of air shipments, whether Fed-Ex, UPS or other carrier, remember that they use dimensional weight. Dim weights are used to insure adequate revenues per cubic foot of cargo plane space. The formula used to calculate dimensional weight is: L x W x H divided by 194. This means a 12" x 13" x 16" box that weighs six pounds will be sent at the twelve pound rate when an air service is used.

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Salesperson's Name _____
Account No. _____ Date _____
Name _____ Call _____
Address _____
City/State _____ Zip _____
E-Mail Address: _____ Fax: _____
Phone No. (Home) ( ) _____ Hours: _____
Phone No. (Work) ( ) _____ Hours: _____

SHIP TO *(If other than at left):*
_____
_____
_____
_____

IF YOU HAVE MOVED since your last order, please show your old address:
_____
_____

QTY.	MANUFACTURER	PART OR MODEL # • DESCRIPTION	PRICE EACH	TOTAL
			TOTAL AMOUNT OF ORDER	$

LINE 1 — TRADE-IN Allowance (if any) *Enclose mail quotation or reference telephone quote & list Trade-in items on line provided below.*

_____

IMPORTANT! Persons having a Trade-in must check one of the following: (Also, see more important information on previous page and on Policies page.)
- ❑ Hold this order until you receive and approve my trade-in.
- ❑ Payment in-full enclosed. Refund allowance when my trade-in is received and approved.
- ❑ Charge the FULL AMOUNT of my order to my Charge Card and Credit my trade-in allowance when my trade-in is received and approved.

-

LINE 2 — Shipping Charges We ship via **best ground method** at *flat-rate* shown on previous page, except to APO/FPO made via Priority Mail.
For Faster Service select one of the following: (These methods are not flat-rated so allow for increased shipping charges - no flat-rate credit.)
❑ UPS Next Day Air (Red) ❑ 2nd Day Air (Blue) ❑ 3-Day Select (Orange) ❑ Federal Express ❑ RPS ❑ Express Mail ❑ Priority Mail

+ *Shipping Charges are taxable in Wisconsin, Florida & Nevada*

LINE 3 — Sales Tax: ❑ WI- 5.6%, ❑ FL- 6%, ❑ NV- 7.25%, ❑ OH-5.75% *For Ohio & Nevada figure tax before subtracting trade-in allowance* +

LINE 4 — Credits: AES Refund Checks, Gift Certificates or Manufacturer's Coupons (if any) -

CREDIT CARD INFORMATION

We accept I.M.P.A.C.® Government Credit Cards

Account Number

Cardholder's Name CARD EXPIRES

Cardholder's Signature Date

LINE 5 — Balance $

LINE 6 — Due AES from previous order (if any) +

TOTAL AMOUNT DUE

Choose payment method from below: (Fill in information at right, if applicable)
❑ Bank transfer ❑ Certified check ❑ Personal check ❑ Money order
DO NOT MAIL CURRENCY. Send bank check or money order. Personal check may delay shipping until it clears our bank. Attach remittance to top of order blank.
❑ Credit card (VISA, MasterCard, Discover, American Express, IMPAC)
❑ COD $7.00 fee per package. *Money Order or Certified Check Only.*
MINIMUM $20.00 COD ORDER – NO AIR OR PARCEL POST COD's

$

AMOUNT ENCLOSED -

BALANCE DUE (IF ANY) $

BANK TRANSFER INFO.

MILWAUKEE, WI M&I Marshall & Ilsley Bank, Milwaukee, WI. ABA #075000051. Further credit to M&I Northern Bank,credit account #8837510 in the name of Amateur Electronic Supply. **WICKLIFFE, OH** Key Bank, Wickliffe Branch, 29310 Euclid Avenue; Wickliffe, OH 44092. Routing #041001039 for credit to: Amateur Electronic Supply Account #350341000239. **ORLANDO, FL** Bank of America, Fashion Square Branch, Orlando, FL Routing #063100277 for credit to: Amateur Electronic Supply Account #2836088068. **LAS VEGAS, NV** Bank of America, Decatur/Tropicana Branch. Routing #122400724 for credit to: Amateur Electronic Supply Account #004961680361.

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COD ORDERS Minimum COD order is $20.00, shipment via UPS Ground only (no air or parcel post). The flat-rate, plus a $7.00 COD fee per package applies. Payment by money order or certified check, only.

DAMAGED ITEMS If you discover a damaged shipment, **THE CARRIER SHOULD BE NOTIFIED IMMEDIATELY**. The merchandise should not be returned to us until notified to do so by the carrier. All packaging materials must be retained including styrofoam peanuts, inner and outer cartons, labeling, etc. for inspection by the carrier or the claim may be denied. With shipments properly packaged (as all our shipments are), the ultimate responsibility for delivery in good condition rests with the carrier.

DEFECTIVE ITEMS Defective items should be returned to Amateur Electronic Supply or the manufacturer for warranty repair or replacement, at our discretion. After processing, we will return it via UPS Ground, prepaid at our expense. If you receive defective equipment, call our Customer Service Department at 414-358-4087 for instructions. Canadians please see *"Canadians Note:"* under TRADE-INS.

INTERNET ORDERS The customer may order products directly on our web site via our internet order form. If the customer does not have access to the web, but has an e-mail account, the customer may e-mail his/her order making sure the following information is included: full name, call sign (not required to order), phone number, billing address, shipping address, item(s) to be purchased (model number and manufacturer) and method of payment. If paying by credit card, we need the card number and expiration date.

PAYMENT Accepted forms of payment are electronic bank transfer, certified check, personal check, money order, credit card (VISA, MasterCard, Discover, American Express, IMPAC), or COD. The customer's choices of payment methods may depend on amount of purchase or destination of shipment.

We accept U.S Government I.M.P.A.C.® Credit Cards

PRICING We will pass on decreases in pricing to our customers whenever possible. Due to foreign currency fluctuations, promotions, manufacturers' specials, etc.; prices may vary, so be sure to confirm prices when ordering. All prices and specifications are subject to change without notice. **AMATEUR ELECTRONIC SUPPLY®** is not responsible for typographical errors or omissions.

REFUNDS Amounts under $5.00 are not refunded unless requested in writing to the Milwaukee headquarters within 12 months.

RETURNS In order to maintain the lowest possible prices, we do not offer a *free trial* or *evaluation period* on new equipment. If permitted, an **Authorized** return of merchandise for credit (it must be like new with all original packaging) will be subject to a **Minimum 15% Restocking Fee**. The item must be returned within **10 days** after receipt, prepaid, with a copy of the purchase invoice and a letter describing the reason for the return. No returns on antennas, towers, cable, items drop-shipped from the manufacturer, audio or video tapes, kits, books, or computer software. Canadians please see *"Canadians Note:"* under TRADE-INS.

SHIPPING Shipping charges, which include adequate insurance, are based on the Order Total at the time of the initial shipment (COD fees not included). The order amount on which charges are determined is pre-coupon and pre-tax. Cancellations on partially shipped orders will not affect the shipping charges. All back-orders from partially shipped orders are shipped PREPAID at the expense of AES® via UPS Ground Service, only.

Shipping calculations on UPS Ground method to the contiguous 48 states have been simplified by utilizing flat-rate categories. Other UPS methods (Red, Blue & Orange) and any USPS methods are charged at regular rates without any credit for UPS ground rates. CODs are not accepted for these faster methods.

Shipments to APO/FPO are via Priority Mail. Orders exceeding UPS or USPS weight, size or value limits will be shipped via Truck or Air Freight collect. Shipping charges taxable in WI, FL & NV.

TRADE-INS Amateur Electronic Supply® accepts trade-ins on new equipment purchases, the worth of which is determined by the electrical and physical condition of the item. Estimates are given assuming the trade-in is in good electrical and physical condition. If it is not, a deduction will be made.

To facilitate a trade-in, the customer can choose one of the following: (A) Purchase the new item(s), send in the trade for evaluation, and have the trade-in amount refunded or credited. (B) Send in the trade and have the order held until the trade-in amount is determined.

When shipping trade-ins for evaluation, use a sturdy carton (double boxing is recommended) and plenty of packing material (see pg. 156). Ship PREPAID & FULLY INSURED. Do not use Bus or Parcel Post. Collect shipments will not be accepted.

AES® assumes no responsibility for damage in transit or for filing of damage claims. Canadians, inquire locally about taxes and/or customs charges before releasing your shipment.

Canadians Note: Returned equipment not originally manufactured in the U.S. will be subject to valuation and custom charges, plus broker's fees. Check customs before shipping anything to us, including new equipment for warranty repair. We will not accept any shipments from outside of the U.S. unless all fees are paid in advance.

BIDS & PURCHASE ORDERS AES® accepts written and signed Purchase Orders from well rated D&B companies, military, schools, colleges, universities and federal, state, county and city Government agencies.

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For more information, please contact Paul Szczerbinski, W9KHO (pauls@aesham.com) at AES® Milwaukee. Toll Free: 1-800-558-0411, Local: 414-358-0333 or Fax: 414-358-3337

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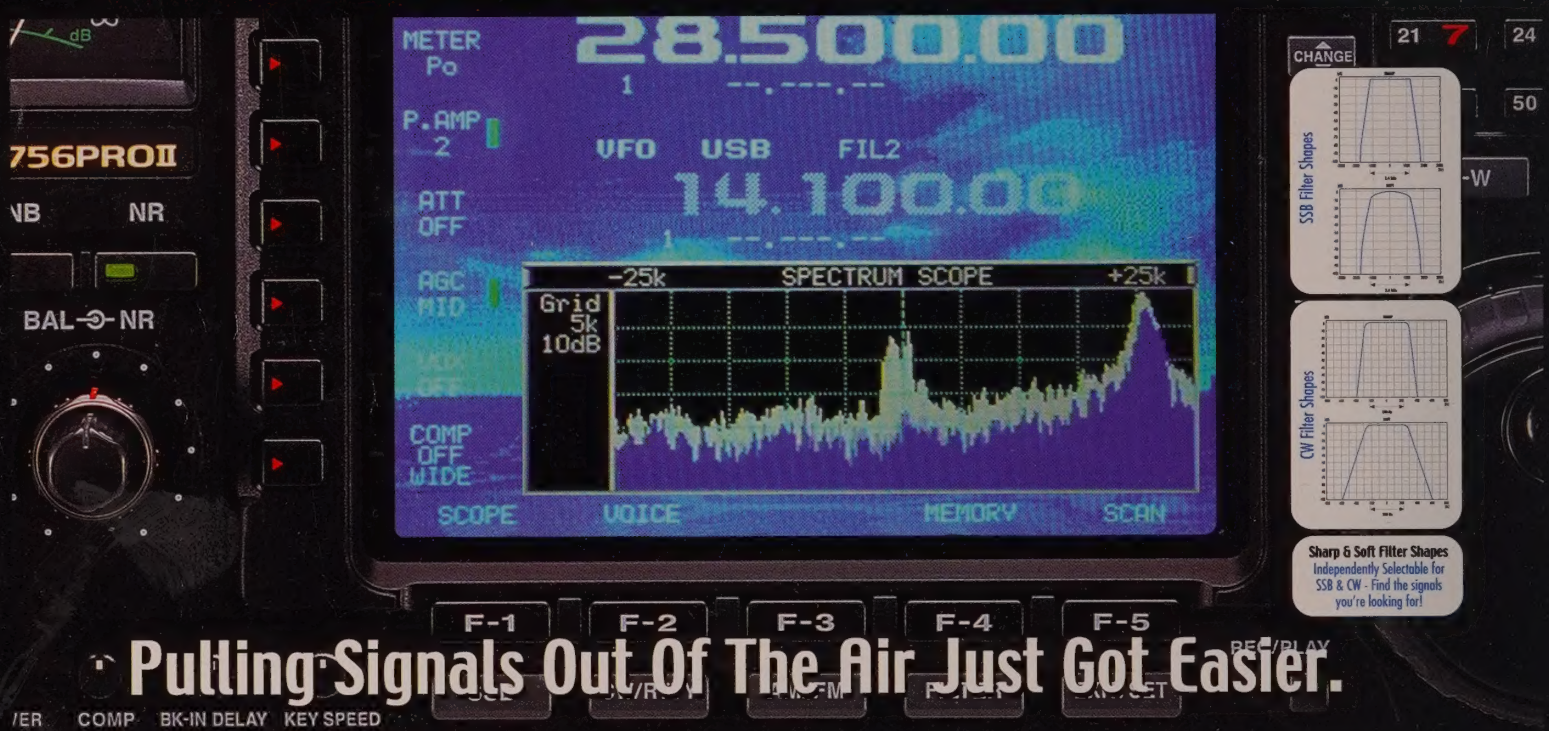

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